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State of California
THE RESOURCES AGENCY

Department of Water Resources

BULLETIN No. 94-2

94:2

Vol. 1

LAND AND WATER USE IN TRINITY RIVER HYDROGRAPHIC UNIT

Volume I: Text

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AUGUST 1964

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources

State of California
THE RESOURCES AGENCY
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FOREWORD

In 1956, the State Legislature declared:

"... that in providing for the full development and utilization of the water resources of this State it is necessary to obtain for consideration by the Legislature and the people, information as to the water which can be made available for exportation from the watersheds in which it originates without depriving those watersheds of water necessary for beneficial use therein ..."

The Department of Water Resources was directed to conduct the necessary investigations to compile this information.

For purposes of these studies, the major drainage areas of the State were delineated. Division of these drainage areas into subareas, designated hydrographic units, was then made. The hydrographic units, which generally comprise watersheds of individual rivers, serve as the basic unit for collection and reporting of data.

The investigation is being conducted in two phases:
(1) collection and publication of data on land and water use, and
(2) determination and reporting of water resources and future water requirements. Collection and processing of basic data for both phases, by hydrographic units, is underway in much of the State.

The land and water use and land classification data are being published as the Bulletin No. 94 series, covering individual hydrographic units. These bulletins are distributed in preliminary editions and reviewed at public hearings. Final editions are then published including summaries of the hearings and resulting revisions. These bulletins are an essential source of data for the subsequent water requirements studies, and when complete, will provide detailed data for the entire State.

This report is the second of the series and is the final edition of Bulletin No. 94-2 following public hearings held in the Trinity River area in June 1963.

The second phase of the investigation begins with an inventory of water resources in each drainage area, including streamflows, ground water, and water quality characteristics. Estimates of future water requirements, based on the land and water use studies and projections of foreseeable future development, are now underway in some areas. Results of these water resources and water requirements studies will be published as Bulletin No. 142 series, each covering some or all of the hydrographic units within a drainage area.

These water resources and future water requirements bulletins will provide the basis for outlining the additional projects needed to meet the State's growing water needs. By interrelating the projected water requirements of all areas of the State with the available local supplies, by decades, a recommended sequence and timing for the State's future water development plans will be established. Besides thus forming the chief basis for the Department of Water Resources' all-important project staging program, the data on water resources and water requirements will be a most valuable guide for water development planning by federal and local, as well as state agencies.

TABLE OF CONTENTS

	<u>Page</u>
FOREWORD	iii
LETTER OF TRANSMITTAL	xi
STATE OF CALIFORNIA, THE RESOURCES AGENCY OF CALIFORNIA, DEPARTMENT OF WATER RESOURCES	xii
CALIFORNIA WATER COMMISSION	xiii
ACKNOWLEDGMENT	xiv
CHAPTER I. INTRODUCTION	1
Organization of Report	2
General Description of Area	3
Location	3
Historical and Present Development	5
Natural Features	13
Climate	16
Water Resources	18
CHAPTER II. WATER USE	21
Water Rights	22
Surface Water Diversions	23
Numbering System for Surface Water Diversions	25
Descriptions of Surface Water Diversions	25
Records of Surface Water Diversions	50
Index to Surface Water Diversions	65
Imports and Exports	65
Consumptive Use	66

TABLE OF CONTENTS (Continued)

CHAPTER III. LAND USE	77
Historical Land Use	77
Present Land Use	78
Methods and Procedures	78
Irrigated Lands	80
Naturally High Water Table Lands	93
Dry-Farmed Lands	95
Urban Lands	95
Recreational Lands	96
Native Vegetation	97
CHAPTER IV. LAND CLASSIFICATION	99
Methods and Procedures	100
Major Categories of Land Classes	103
Irrigable Lands	103
Urban Lands	105
Recreational Lands	105
Miscellaneous Lands	108
CHAPTER V. SUMMARY	111
Water Use	111
Land Use	113
Land Classification	114

TABLES

Table No.

1	Areas of Subunits in Trinity River Hydrographic Unit	4
---	---	---

TABLE OF CONTENTS (Continued)

<u>Table No.</u>		<u>Page</u>
2	Mean Annual Precipitation at Selected Stations in or near Trinity River Hydrographic Unit	17
3	Summary of Temperature Data at Selected Stations in or near Trinity River Hydrographic Unit . .	18
4	Summary of Runoff Data Trinity River near Hoopa (1931-1957)	20
5	Descriptions of Surface Water Diversions in Trinity River Hydrographic Unit	27
6	Monthly Records of Surface Water Diversions in Trinity River Hydrographic Unit, 1957. . . .	53
7	Index to Surface Water Diversions in Trinity River Hydrographic Unit	68
8	Land Use in Trinity River Hydrographic Unit, 1957	79
9	Irrigated Lands in Trinity River Hydrographic Unit, 1957	82
10	Land Classification Standards	100
11	Classification of Lands in Trinity River Hydrographic Unit	106

ILLUSTRATIONS

<u>Illustration No.</u>		
1	Gold dredge near Trinity Center	7
2	Hydraulic mining	7
3	Trinity Alps	14
4	Trinity Dam	14
5	Exterior of Chinese Joss House, Weaverville . . .	19
6	Interior of Chinese Joss House, Weaverville . . .	19
7	Lumber mill near Weaverville	26
8	Hoopa Valley	26
9	Weaverville	52
10	Relocated Trinity Center	52

ILLUSTRATIONS (Continued)

<u>Illustration No.</u>		<u>Page</u>
11	Example of Land Use Delineated on Aerial Photograph	81
12	Cattle Grazing	94
13	Hayfork Valley	94
14	Housing Development at Lewiston for Trinity River Project	98
15	Lewiston Dam, Under Construction	98
16	Example of Land Classification Delineated on Aerial Photograph	104
17	Fishing on the Trinity River	107
18	Big Slide Campground, South Fork Trinity River . . .	107
19	Logging Trucks Near Hyampom	109
20	Hyampom Valley	109

Figure No.

1	1957 Land Use	115
2	Classification of Lands	115

APPENDIXES

A	STATEWIDE WATER RESOURCES AND WATER REQUIREMENTS PROGRAM	A-1
B	REPORTS ON RELATED INVESTIGATIONS AND OTHER REFERENCES	B-1
C	LEGAL CONSIDERATIONS	C-1
D	COMMENTS ON BULLETIN NO. 94-2, "LAND AND WATER USE IN TRINITY RIVER HYDROGRAPHIC UNIT," PRELIMINARY EDITION	D-1

PLATES

Plate No.

- 1 Location of Unit
- 2 Land and Water Use
- 3 Classification of Lands

DEPARTMENT OF WATER RESOURCES

P.O. BOX 388
SACRAMENTO

August 4, 1964

Honorable Edmund G. Brown, Governor,
and Members of the Legislature
of the State of California

Gentlemen:

I have the honor to transmit Bulletin No. 94-2, "Land and Water Use in Trinity River Hydrographic Unit," which describes land use, land class and water use, within this hydrographic unit. This report is one of a series of Department of Water Resources reports which will describe similar studies being conducted throughout the State. These studies are being conducted pursuant to legislation sponsored by Senator Edwin J. Regan and codified under Section 232 of the Water Code.

In May, 1963, the preliminary edition of this bulletin was released, and in June its contents were discussed at public hearings held in Weaverville and in Hoopa. Appendix D of the present edition reports upon comments received. Department personnel studied these comments carefully and revised the present edition accordingly.

Bulletins of the No. 94 Series provide information which will be used to estimate the amount of water which can be used beneficially within each area. The amounts of water surplus or deficiency will be determined by comparison of these estimated needs with the local water resources.

Bulletin No. 94-2 will help concerned interests determine future needs for water in the Trinity River Hydrographic Unit. In addition to basic data on land and water use, there is included a discussion of the history, natural features, climate, and economy of the unit. Maps of present land use and land classification illustrate the text.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "W. E. Warne".

Director

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

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HUGO FISHER, Administrator, The Resources Agency
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WILLIAM M. CARAH
Executive Secretary

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Engineer

ACKNOWLEDGMENT

The Department of Water Resources gratefully acknowledges information contributed by the numerous water users and residents of the Trinity River Hydrographic Unit and various agencies of the federal, state, and local governments.

While most of the photographs shown in this report were taken by the Department of Water Resources, some were furnished by other agencies. Special thanks are given to the United States Forest Service for use of their photograph appearing at the top of page 7, to the Shasta-Cascade Wonderland Association for their photographs used on the bottom of pages 7 and 107, and to the State Division of Beaches and Parks for those photographs shown on page 19.

CHAPTER I. INTRODUCTION

This bulletin presents basic data on land and water use in the Trinity River watershed. This watershed is designated herein as the Trinity River Hydrographic Unit. The data cover present land and water use, classification of lands, systems used to divert Trinity River and tributary surface waters, histories of diversions, apparent water rights pertinent to each diversion, purpose and extent of use of diversions, seasonal quantities of water diverted during 1957-58, and an estimate of present consumptive use of water in the unit. A general description and a brief history of the area are also included.

These basic data were gathered during the period 1956-58 in compliance with Chapter 61, Statutes of 1956, as amended by Chapter 2025, Statutes of 1959, and codified in Section 232 of the Water Code of the State of California. This legislation provides for an inventory of water resources and water requirements of the State. This is the second of a series of bulletins to be prepared under this authorization. The text of Section 232, with a discussion of its history and implications, is included in this bulletin as Appendix A.

These data will provide the basis for a future determination of the quantities of water reasonably required for future beneficial use within the Trinity River Hydrographic Unit. Preliminary estimates have been made and presented in Department of

Water Resources Bulletin No. 58, "Northeastern Counties Investigation," June 1960 and Bulletin No. 83, "Klamath River Basin Investigation," May 1960.

Final determinations of future water requirements will be based on estimates of (1) future land use, (2) economic patterns, (3) population, (4) industrial and agricultural development, and (5) recreational needs.

The data presented herein have been reviewed in preliminary form by the Trinity County Board of Supervisors, farm advisors, and local water users. These groups submitted changes which were reviewed in the field, and adjustments were made where the original data were found to be incorrect.

Organization of Report

This bulletin consists of five chapters, four appendixes and three plates. Chapter I contains a general description of the Trinity River Hydrographic Unit. Chapter II, "Water Use," presents data on surface water diversion systems, related water rights information, measurements of quantities of water diverted, and an analysis of consumptive use. Chapter III, "Land Use," includes a history of land use within the unit and tables of present land use. Plates prepared in connection with Chapters II and III delineate the areas of various present land uses and the locations of diversion systems. Chapter IV, "Land Classification," includes a tabulation of lands classified with regard to their potential for irrigated agriculture and for recreational purposes. Plates prepared for this chapter delineate the respective classes of land grouped

into several major categories. Chapter V, "Summary," summarizes the report.

Appendix "A" presents the text of Section 232 of the California Water Code and a discussion of the pertinent responsibilities and work program of the Department of Water Resources. Appendix "B" is a bibliography of publications pertinent to the Trinity River Hydrographic Unit. Appendix "C" presents a short summary of California water law and a tabulation of applications to appropriate water in the unit. Appendix "D" contains pertinent comments presented at the public hearings on the preliminary edition of this bulletin.

General Description of Area

Location

The Trinity River Hydrographic Unit lies within the Klamath River Basin of the North Coastal Area. The hydrographic unit comprises the entire watershed of the Trinity River, and occupies 2,556 square miles of Trinity County and 413 square miles of Humboldt County, as shown on Plate 1, "Location of Unit." The river rises in rugged canyons between the Scott Mountains on the northwest and the Eddys on the east, and flows generally south and west more than 80 miles to Douglas City, then northwest and north over 100 miles to its junction with the Klamath River at Weitchpec. Major tributaries are Coffee Creek, Stuarts Fork, Canyon Creek, North Fork, New River, and South Fork. Hayfork Creek is the major tributary to the South Fork.

The hydrographic unit boundary follows the ridges separating the drainage area of the Trinity River from adjacent watersheds of the Klamath, Salmon, Scott, and Shasta Rivers on the north; the Sacramento River, Clear Creek, and Cottonwood Creek on the southeast; and the Mad River and Redwood Creek on the southwest.

For purposes of this report, the Trinity River Hydrographic Unit has been divided into 13 subunits. Locations of these subunits are shown on Plate 1, and the area of each is shown in Table 1.

TABLE 1
AREAS OF SUBUNITS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Subunit	Trinity County,		Humboldt County,		Total area	
	in acres		in acres		acres	square miles
Burnt Ranch	134,600	0			134,600	210
Hayfork Creek	70,300	0			70,300	110
Hayfork Valley	172,200	0			172,200	269
Helena	176,900	0			176,900	276
Hoopa	0	152,800			152,800	239
Hyampom	24,000	3,900			27,900	44
Lower S. Fork	37,600	68,800			106,400	166
Middle Trinity	157,000	0			157,000	245
New River	150,300	0			150,300	235
Trinity Res.	459,800	0			459,800	718
Upper S. Fork	219,500	0			219,500	343
Weaver Creek	31,800	0			31,800	50
Willow Creek	1,800	38,900			40,700	64
TOTAL AREA	1,635,800	264,400			1,900,200	2,969

Historical and Present Development

Credit for the discovery and naming of Trinity River has been given to Major Pierson B. Reading. In 1845, while on a trapping expedition from Sutter's Fort to northern California and Oregon with a party of 30 men and 100 horses, he crossed the mountains from the Sacramento River and found a large stream which he called "Trinity River," supposing it led to the Pacific Ocean at Trinidad Bay, as marked on old Spanish charts. He and his party, however, were not the first white men to explore Trinity River watershed. Jedediah Smith crossed it in 1828 while opening the Coast route to Oregon. Trappers traversed the unit on the Trinity Trail during the 1830's. Settlers did not come, however, until after Major Reading discovered gold in the Trinity River in 1848.

The lure of quick and easy gold, in 1850, brought many miners with pan, rocker, or sluice box to work the numerous gravel bars that lined the Trinity River and its tributaries. By 1854, most of the placer deposits which could be worked by rocker or sluice box had been gleaned of their precious metal and abandoned. The increased value given to gold during the Civil War caused a flare-up of work in placer mining and the introduction of hydraulic mining to develop the large, dry deposits which were previously unworkable. This method of operation required that water be applied under pressure to the deposits at higher elevations. To supply this water, and to obtain the head required, ditches were built from upstream tributaries, many of which are being used today for irrigation.

The development of gold mining went forward fairly rapidly, reached a major peak around 1892, and then remained fairly constant until the recession of 1907. In the mid-1920's there was a resurgence of heavy hydraulic and dredger mining in the Trinity River watershed. Production reached an all-time high in 1942, was curtailed during World War II, resumed in 1945, and increased steadily until 1949, when increasing costs caused a downturn in production.

With the influx of miners, shops were set up and towns were formed to supply the needs of the miners. Weaverville was established in 1850 as the original Trinity County seat, but for purposes of administration and government, the county was attached to Shasta County until 1851. The first house was built of logs on a site adjacent to the present courthouse. The town grew rapidly and by 1858 was estimated to have a population of 1,000, of which 200 were Chinese immigrants. As a trading center for early gold mining activities, Weaverville immediately became the most prominent town in the watershed. In recent years the population has increased steadily from 500 persons in 1920, to 740 in 1940, to 900 in 1950, and to 1,740 in 1960. Throughout the hydrographic unit the population has tended to form small urban clusters scattered over the area but generally near one of the main branches of the Trinity River.

Lewiston, located along the Trinity River east of Weaverville, is in one of the early placer gold mining areas. The community was established around 1860, and the general trend of its development has apparently followed that of Weaverville. The

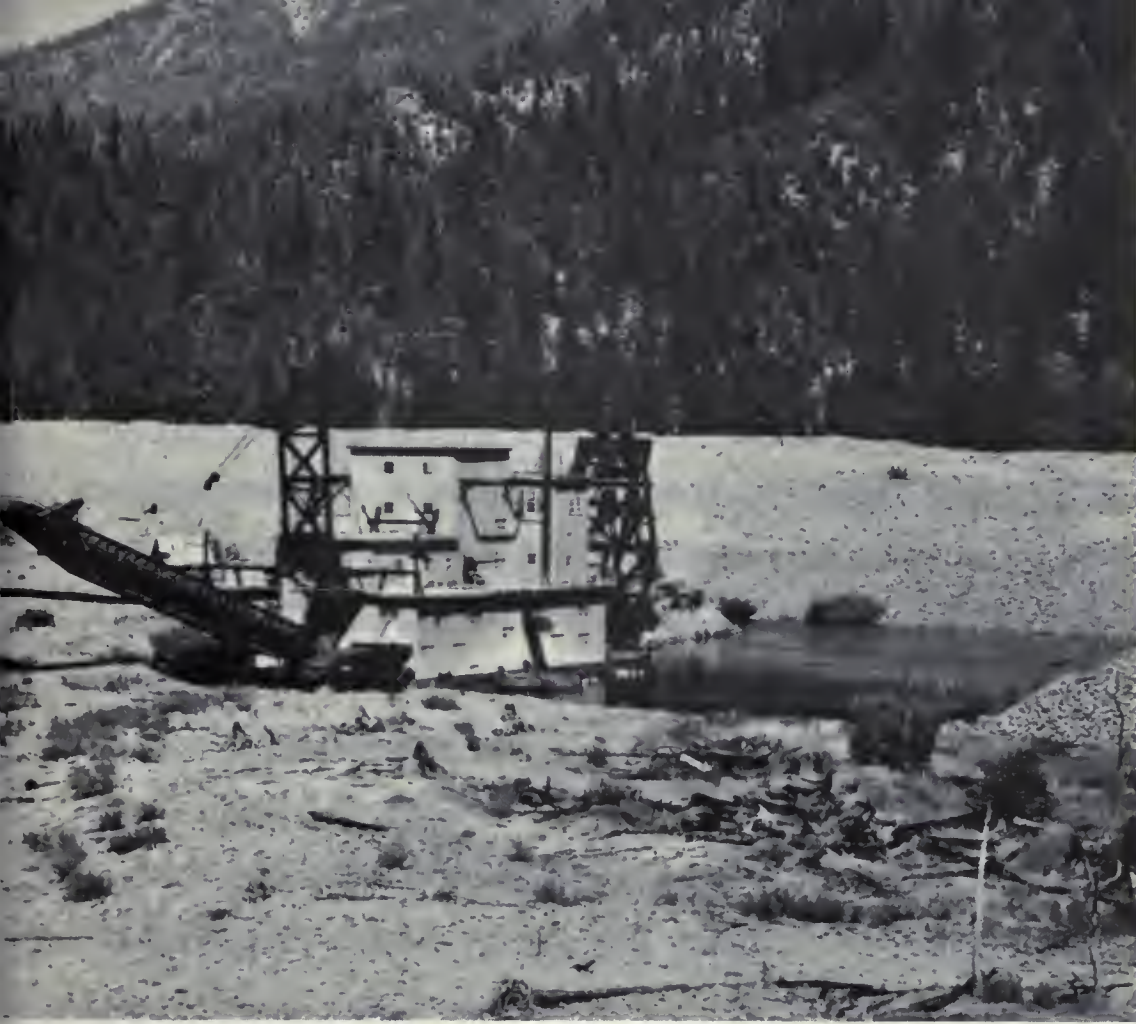


Illustration 1
(left)

Gold dredge

near

Trinity Center



Illustration 2
(bottom)

Hydraulic mining

population dropped from about 250 persons in 1910 to a low of about 90 in 1930, rose to about 120 in 1950, and in 1960 had increased to about 1,400 due to the construction work on the Trinity Dam.

Willow Creek, a third urban area which was originally founded on a mining economy, is located along the lower Trinity River about five miles downstream from its confluence with the South Fork in eastern Humboldt County. The town is believed to have been quite small until after the end of Hoopa Indian hostilities in 1864, and to have grown slowly until 1920. Since that time, the increase in placer mining activities gave the town an upward population trend. The increase in population, from about 150 in 1950 to almost 600 in 1960, has resulted from the expanding lumber and plywood industry and the recreational activities of the area.

The town of Hoopa was founded in 1864, when the Hoopa Valley Indian Reservation was established. Because of the lack of external commerce prior to the late 1940's, the population remained relatively static compared to that in the remainder of the basin. In 1940, the population of the valley is estimated to have been about 565 persons. By 1950, the number had risen slightly to about 730 persons, but the initiation of forest-centered activities increased the population to almost 1,850 people by 1960.

As towns sprang up to supply the needs of the miners, agricultural land was also cleared and developed. E. M. George

recognized Hayfork Valley as a potential garden spot as early as 1850. In 1851, he organized a party of settlers to cross the mountains from Weaverville and Steiner Flat (an early settlement near the present Douglas City) to stake out ranches and clear the land for planting. The first settlement in the valley was called Kingsberry, later Hay Town, and finally Hayfork.

By 1860, Hayfork Valley was estimated to have a population of 1,200 and practically all of the agricultural land in the valley had been taken and was being improved. This was also the case with agricultural land throughout other areas of the Trinity River Hydrographic Unit. Produce from Hayfork Valley, which included grain, potatoes, beans, butter, eggs, and livestock, was sufficient at that time to supply the entire population of Trinity County. The population of this agricultural center dropped to about 130 in 1910, increased slowly to 200 in 1930, and by 1940 reached approximately 250. During the late 1940's the long-delayed development of commercial timber stands, coupled with steady development of other economic activities, almost tripled the population to 650 in 1950. In 1960 the population is estimated to have increased to 1,150.

The Trinity River drainage contains 1,112,000 acres classified as commercial timberland by the United States Forest Service with a volume of 33.6 billion board-feet. About 30 percent of this acreage is in private ownership, the remainder being in either national forest, Indian lands, or public domain.

Coniferous timber in the area is composed of three principal types: ponderosa pine, Douglas fir, and true firs. The distribution of these is such that a mixed stand of the three constitutes about three-fourths of the commercial forest area and Douglas fir alone accounts for the remaining one-fourth.

The vast stands of timber have not been uniformly developed to date. The annual production of timber from private lands within the unit, amounting to about one million board-feet in 1940, increased to an estimated 216 million board-feet by 1951. Since the annual sustained yield of timber from these holdings has been estimated to be about 125 million board-feet, the 1951 rate of timber cutting could not be maintained without permanent reduction of the timber resources of the hydrographic unit. Since 1952, the timber demands of the mills in the unit have been satisfied by increased sales from public lands, thus reducing somewhat the pressure of cutting logs on private lands. A peak of production occurred in 1956 when an estimated 407 million board-feet of timber was cut within the Trinity River Hydrographic Unit. The United States Forest Service estimates the annual sustained timber yield from all sources within the hydrographic unit to be 410 million board-feet.

Since the advent of intensive logging operations, beginning with the end of World War II, the forest products industry has been the leading element of the economy of the Trinity River Hydrographic Unit. The number of wood processing plants within the hydrographic unit has increased from one in 1939 to thirty-two in 1951, and to more than fifty in 1956, including at least

three which manufacture plywood-veneer products. The value of wood products manufactured in the hydrographic unit in 1940 amounted to less than \$22,000. However, it had increased to about 2.2 million dollars in 1947, to between 5 and 6 million dollars in 1954, and to over 8 million dollars in 1956.

Mining of mineral products, once the backbone of the economy of Trinity River Hydrographic Unit, has been generally relegated to a lesser position since World War II. The value of both metallic and non-metallic minerals produced in 1949 was \$267,000. In 1954, it amounted to \$300,000 and increased to about \$540,000 in 1956. The indicated increase in the value of mineral products since 1949 has been due mainly to the increased output of sand and gravel.

In 1949, sand and gravel output replaced gold at the head of the "value of minerals produced" list, when it accounted for almost one half of the total value of minerals produced within the hydrographic unit. A continued high level of building and construction activity in the unit since that time has kept it there. While gold is still the leading metallic mineral produced, chromium ore is beginning to be mined in the southern portion of the unit and copper concentrates are being developed in the Copper Bluff area of Hoopa Valley. Although potentially valuable deposits of limestone are located only a few miles southwest of Willow Creek, they have not as yet been developed.

The Trinity River Hydrographic Unit is not conducive to the development of large acreages of intensive agriculture.

Both the topography and the climate limit the types of produce mainly to livestock and forage crops. However, the value of agriculture products in the Trinity County portion of the hydrographic unit has increased from \$173,000 in 1940 to \$287,000 by 1945 and to \$426,000 in 1954. In 1957, there were 4,472 acres of irrigated lands in the entire unit.

While the Trinity River Hydrographic Unit has a large recreational potential, historically the recreational activities have been small due largely to the limited access to much of the area. The rugged mountains along with the sustained streamflow, the vegetative pattern, and the large wild game population of the area can provide an almost unlimited outdoor recreational activity. The large areas of national forest lands are capable of handling large numbers of the general public, if and when sufficient access roads, campgrounds, and other facilities are furnished.

Since there are only portions of the Six Rivers, Shasta-Trinity, and Mendocino National Forests within Trinity River Hydrographic Unit, data on recreational activities covering the entire hydrographic unit are not readily available. However, based on data from Shasta-Trinity National Forest and from Lower Trinity Ranger District of Six Rivers National Forest, which includes the Willow Creek portion of the unit, there has been an appreciable increase in the recreational activities between 1947 and 1956. In 1947, it is estimated that there were about 85,000 visitor-days of recreational activities within the hydrographic unit, and this increased to 90,000 visitor-days in 1950, to 540,000 visitor-days in 1954, and to 580,000 visitor-days in 1956.

The area of lands within the unit devoted to recreation amounted to only about 600 acres in 1957. However, a forest management plan for the extensive recreational development of lands surrounding Trinity Reservoir has been prepared by the United States Forest Service. About 7,000 acres have been classified for such uses as campgrounds, picnic areas, organization camps, resorts, trailer camps, and summer homes.

Most of the water service in Trinity River Hydrographic Unit is provided by individuals for their own use, but there are a few water service organizations. These organizations are listed in Chapter II.

The only large water development project in the unit, the Trinity River Division of the Central Valley Project, is under construction by the United States Bureau of Reclamation. Trinity Reservoir, the major storage feature of the project, has a storage capacity of 2,500,000 acre-feet and an installed powerplant capacity of 90,000 kilowatts. Water released for power will be reregulated in the reservoir behind Lewiston Diversion Dam for subsequent diversion into the Sacramento River through Clear Creek Tunnel, or for release down the Trinity River.

Natural Features

The Trinity River Hydrographic Unit is predominantly mountainous, varying in elevation from 305 feet at Weitchpec to 9,025 feet at Mount Eddy in the northeast corner of the unit. Irrigable agricultural lands constitute only a small part of the total area. Almost 60 percent has been classified as commercial



Illustration 3
(top)

Trinity Alps



Illustration 4
(left)

Trinity Dam

timberland by the United States Forest Service. The drainage system of this rugged area developed from an uplifted plateau surface on extremely varied rock types and has resulted in a complex drainage pattern.

Consolidated rocks in the unit include meta-sedimentary, metamorphic, and granitic types ranging in age from pre-Silurian to Cretaceous. Several areas of middle Tertiary continental sediments are included in the unit. The older rocks, generally found in the eastern part of the unit, include pre-Silurian schists, middle Paleozoic meta-sediments and meta-volcanics, and Mesozoic granitic and ultrabasic intrusives. To the west a broad zone of Devonian to Triassic meta-sedimentary and meta-volcanic rocks is found. Mesozoic granitic intrusives and belts of ultrabasic rocks, often altered to serpentine, are associated with these rocks. In the extreme western portion of the unit Jurassic schists and meta-sediments, with associated serpentine and ultrabasic rocks are found. Middle Tertiary sediments of continental origin occur throughout the unit as isolated patches overlying the older rocks, and as old river channel deposits of gold-bearing gravels.

The area includes both residual and alluvial soils. Residual soils are formed in place by the weathering of the parent rock material and reflect the nature of the parent rock in their physical and chemical makeup. Residual soils in the Trinity River Hydrographic Unit are developed mostly from parent rocks of sedimentary or metamorphic type, and are usually sandy-loams over sandstones, and clay-loams and clays over shales and slates. These soils are nonirrigable because of their steep slopes and are used mainly for cattle grazing.

Alluvial soils are formed from material eroded from its primary source and subsequently deposited in the valleys. In the process of being transported, material from a variety of rock sources is mixed so that alluvial soils very often have chemical and physical characteristics that cannot be traced to a particular rock type. Such soils contain gravel and cobbles that have been transported along with the finer soil materials. Irrigable lands in the Trinity River Hydrographic Unit, which constitute less than one percent of the total area, are alluvial soils occurring mainly as small, scattered, relatively flat bodies along the various rivers and streams of the unit. Larger bodies of irrigable lands are situated in Hayfork Valley and in the vicinity of Hoopa.

Climate

The climate of Trinity River Hydrographic Unit is characterized by warm summers and mild winters, except in the higher mountains which experience more severe winters. From 75 to 80 percent of the precipitation occurs from November through March with the remainder fairly evenly distributed over September, October, April, May, and June. July and August are dry except in unusually wet years. Most of the precipitation occurs as snow at the higher elevations, the "average snow line," considered to be the average of the lowest elevations at which there is snow on the ground on April 1, is about 4,000 feet. Annual precipitation, influenced by distance from the ocean and relative height of mountain barriers to the southwest, varies from 35 inches along the Trinity River and Hayfork Creek to 70 or 80 inches at the higher elevations of the ridges forming the watershed boundaries.

Table 2 shows the mean annual precipitation at selected stations within and immediately adjacent to the Trinity River Hydrographic Unit.

TABLE 2

MEAN ANNUAL PRECIPITATION AT SELECTED STATIONS IN OR NEAR
TRINITY RIVER HYDROGRAPHIC UNIT

Station	: :Eleva- : tion :	: 50-year mean : :precipitation*: : (in inches) :	Period of record
Big Bar Ranger Station	1,248	36.75	1914-1925 & 1943-1959
Burnt Ranch	2,150	37.70	1945-1959
China Flat	650	46.15	1909-1959
Forest Glen	2,340	57.73	1930-1958
Hay Fork Ranger Station	2,346	30.96	1915-1959
Hoopa	350	48.76	1941-1958
Hyampom	1,240	38.57	1940-1958
Mad River Ranger Station	2,775	55.15	1943-1958
Ruth	2,925	49.81	1912-1930
Salyer Ranger Station	623	45.17	1931-1958
Trinity Center Ranger Station	2,295	45.51	1941-1958
Weaverville Ranger Station	2,050	34.89	1871-1958
Weitchpec 7NNE	1,700	75.53	1910-1917

*Adjusted mean values for 1905-1955, based on the periods indicated by correlation with records for nearby stations.

Temperatures in the hydrographic unit are influenced by prevailing air masses, elevations, drainage of cold dense air from higher elevations, and distance from the ocean. The average January, July and annual temperatures, and extremes of record, the average daily variation, and the average frost-free period for representative stations are given in Table 3. These data, except the frost-free periods, are from "Climatic Summary of the United States - Supplement for 1931 Through 1952," Bulletin W. published by the U. S. Weather Bureau. The base periods for most of the stations, however, include a number of years previous to 1931. The frost-free periods were

derived by the Department of Water Resources, and are defined as the average period between the last spring day and the first fall day on which the minimum temperature is 32 degrees or lower.

TABLE 3

SUMMARY OF TEMPERATURE DATA AT SELECTED STATIONS IN OR NEAR
TRINITY RIVER HYDROGRAPHIC UNIT

Station	Elevation (feet)	Average temperatures Jan.: July: Annual:	Extreme temperatures Low : High :	Average daily : variation :	Average frost-free period (days)
China Flat (near Willow Creek)	650	41.7 72.7 56.6	9 113	26.3	247
Forest Glen	2,340	36.9 68.3 51.6	-2 107	31.6	141
Ruth	2,925	39.0 69.2 52.5	7 107	--	--
Weaverville	2,050	36.9 71.2 53.3	-7 116	34.2	--
Weitchpec	1,700	38.0 67.6 52.4	16 102	--	143

Water Resources

The predominant source of water supply to the Trinity River Hydrographic Unit is the flow of surface water in the Trinity River and its tributaries. Runoff is extended beyond the main precipitation period by the release of water from natural storage during the snowmelt period in spring and early summer.

Records of flow are available for the stream gauging station "Trinity River near Hoopa" for the years 1911-1914, 1916-1918, and 1931 to date. Streamflow information for this station, which

Illustration 5
(right)

Exterior of
Chinese Joss House,
Weaverville



Illustration 6
(bottom)

Interior of
Chinese Joss House,
Weaverville



measures runoff from 2,846 square miles, or 96 percent of the hydrographic unit, is summarized for the 26-year period 1931-1957 in Table 4.

TABLE 4

SUMMARY OF RUNOFF DATA, TRINITY RIVER NEAR HOOPA
(1931-1957)

Period	: Annual runoff : in : acre-feet	: Discharge, : in percent : of average	: cubic feet : per second
Average runoff, 1931-57	4,107,000	--	--
Runoff in minimum year, 1933-34	1,900,000	47	--
Runoff in maximum year, 1937-38	7,601,000	185	--
Maximum instantaneous flow, December 22, 1955	--	--	190,000
Minimum instantaneous flow, October 4, 1931	--	--	162

Streamflow measurements made during the irrigation season from May through September 1957, indicated that the runoff of the Trinity River near Hoopa was 108 percent of the 26-year (1931-57) average for the 5-month period.

CHAPTER II. WATER USE

Present water requirements in the Trinity River Hydrographic Unit are met almost entirely by diversions of surface runoff. For this investigation a survey was made of the systems established for the diversion of streamflow. Survey data reported herein include locations and descriptions of diversions, uses, amounts of water diverted, and information on apparent water rights relating to diversions. Diversions of water for all purposes are reported, except that those involving less than approximately 10 acre-feet per season, such as individual domestic users, are omitted.

Quantities of water diverted during 1957 were measured in order to further describe the diversion systems. The measured quantities do not necessarily represent average diversions, since during any single year the quantity diverted will be influenced by precipitation during the growing season and the available streamflow. As stated in Chapter I, runoff in the Trinity River during the summer of 1957 was slightly above average. Considerations other than available water supply, such as economic factors, may also affect the relation of any diversion record to typical operating conditions. No attempt was made herein to assess these factors. The diversion quantities reported herein generally represent the actual amounts of water taken from the respective sources, and therefore include recoverable and irrecoverable losses incidental to the primary use.

The location of water wells and the measurement of their production were not covered in this investigation. All irrigated lands reported herein are supplied from surface water sources.

Urban water service in the unit is provided in the following localities:

<u>Location</u>	<u>Owner</u>	<u>Source</u>
Lewiston	Guy F. Atkinson Company (Housing development--Trinity Project)	Trinity River
Lewiston	United States Bureau of Reclamation (Housing development--Trinity Project)	Trinity River
Hayfork	Trinity County Water Works District No. 1	Big Creek
Hoopa	United States Bureau of Indian Affairs	Supply Creek
Weaverville	California Pacific Utility Company	East Weaver Creek
Weaverville	Moon Lee	West Weaver Creek

Rural domestic uses are supplied by individual domestic wells and diversions of surface water.

Water Rights

Water rights are an important consideration in the determination of availability of waters which are surplus to the present and future needs of an area wherein the waters originate. Data were, therefore, obtained with respect to apparent water rights in connection with the surface water diversions described herein. These rights may be based on appropriative or riparian

status. The California law of water rights, including both surface and underground water, is described briefly in Appendix C.

Most of the water use in the Trinity River Hydrographic Unit is based on riparian rights or on appropriative rights established prior to 1914. As of January 15, 1959, a total of 303 currently valid applications had been made in the unit under the provisions of the Water Commission Act of 1913. Permits or licenses had been granted for 277 of these applications, 16 were pending with the State Water Rights Board, and 10 were incomplete as of that date. Eight of the then pending applications were for diversion and storage at Trinity and Lewiston Reservoirs. On September 16, 1959, permits were granted for these eight applications. All the applications are tabulated in Appendix C, Table C-1. There has been no major adjudication of water rights in the Trinity River Hydrographic Unit.

Surface Water Diversions

An attempt was made during the survey to locate and obtain data with respect to all diversions of more than 10 acre-feet per year. All diversions actually in use in 1957, and those which had been used within the preceding five years, were included. The date of last use, if known, is recorded for such discontinued diversions. Direct diversions, as well as those involving significant surface storage, were located. All reservoirs which had surface areas of about three acres or more were mapped. This size was considered the minimum size that could be

delineated on the aerial photographs used. Reservoirs located along and operated in conjunction with canals and ditches are shown on the land and water use maps, but are not considered as separate systems and are not assigned location numbers. Similarly, water supplies obtained from small intermittent streams intercepted by canal systems, which add to the primary diverted supply, are not classed as separate diversions.

In some situations, water users have made efficient use of water supply by rediverting field runoff or spill collected from their own upstream diversion systems. In this investigation, such points of rediversion are neither located on the maps nor assigned numbers. If return flow from another water user's operation is rediverted or if there is doubt as to the origin of the water, the diversion is delineated and assigned a number. Diversion systems of water companies or groups of water users are considered as single units; individual customer distribution points are not shown on the maps.

There were 230 diversions of surface water located in the unit in 1957. These are classified by primary use as follows:

<u>Primary use</u>	<u>Number of diversions</u>
Irrigation	163
Mining	25
Industrial (lumber mills)	15
Domestic	11
Municipal	6
Power	9
Recreation (fish pond)	<u>1</u>
Total diversions	230

Points of diversion and main canals or pipelines used to convey water from them are delineated on the 31 sheets of Plate 2, entitled "Land and Water Use." The diversions are listed in Table 5.

Numbering System for Surface Water Diversions

Surface water diversions are numbered to indicate their approximate location according to township, range, and section within the federal land survey system. In this report, each section is subdivided into 40-acre plots and the diversions are numbered within each of these 40-acre plots according to the order in which they were located. This system is illustrated on Plate 2. For example, diversion 31N/12W-21F1, which is shown on Sheet 24 of Plate 2 labeled as "21F1," is the first diversion located in the southeast quarter of the northwest quarter of Section 21 in Township 31 North, Range 12 West, Mt. Diablo Base and Meridian (MDB&M).

Descriptions of Surface Water Diversions

Description, history, and other information relating to surface water diversions were obtained by field inspection, by interview with water users or their representatives, and by reference to prior reports and official records. This information is summarized in Table 5. Data in the table are arranged by diversion location number within each subunit.

The purposes of each diversion, the quantity of water diverted during 1957, the extent of use, such as the number of acres irrigated, and the method of application of water are



Illustration 7 (top) Lumber mill near Weaverville

Illustration 8 (bottom) Hoopa Valley



TABLE 5

DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acres-feet	Type	Amount	Reference			
BURNT RANCH, SUBUNIT											
H B & M 4N/8E-901 (Sheet 17)	Kurt Bennet	Deer Creek	(*)	(*)	(*)	Approp.	--	--	About 1860	Gravity; rock and gravel dam 2 feet high, 7 feet long, with 0.8 mile of earth ditch.	Water is conveyed to Patterson Gulch and rediverted 500 feet downstream at 33N/12W-6Fl. Amount of diversion and details of use reported under 33N/12W-6Fl.
5N/6E-22C1 (Sheet 14)	Eric Dose	Tributary to McDonald Creek	Irrig.	8 acres by sprinkler	14	Riparian	--	Deed	1922	Gravity; earth dam 10 feet high, 20 feet long, with 3-inch pipeline.	Former owner: Hayward.
5N/6E-23N1 (Sheet 14)	Paul F. Kaut	Brandit Creek	Irrig. Domestic (c)	(*) (c)	30*	Riparian	--	--	Prior 1914	Gravity; earth and rock dam 1 foot high, 6 feet long, with 300 feet of earth ditch and 0.2 mile of 2-inch pipe.	Former owners: H. A. Flower, L. Brannen, J. E. Brannen. Portion of amount diverted used to supplement 5N/6E-35Fl.
5N/6E-25G1 (Sheet 14)	Homer and Carol Spellenberg	Tributary to Bidden Creek	Irrig. Domestic (c)	9 acres by flooding and sprinkler (c)	Not meas.	Riparian	--	--	Prior 1905	Gravity; rock and gravel dam 1 foot high, 3 feet long, with 0.3 mile of earth ditch.	Former owners: Benjamin and Della Friederichs.
5N/6E-25D2 (Sheet 14)	Homer and Carol Spellenberg	Bidden Creek	Irrig.	4 acres by flooding	Not meas.	Riparian	--	--	About 1905	Gravity; earth dam 8 feet high, 100 feet long, with 0.2 mile of earth ditch to small reservoir.	Former owners: Benjamin and Della Friederichs.
5N/6E-35Fl (Sheet 14)	Paul F. Kaut	Mill Creek	Irrig. Domestic (c) Stock	41 acres by sprinkler* (c) 60-150 head	148	Approp.	--	--	Prior 1914	Gravity; earth dam 2 feet high, 4 feet long, with 2.2 miles of earth ditch to a small reservoir and 0.4 mile of 4-inch pipe from reservoir to area of use.	Former owners: H. A. Flower, L. Brannen, J. E. Brannen. Area irrigated received supplemental supply from 5N/6E-23N1.
5N/7E-20N1 (Sheet 14)	Mary M. Carpenter	Don Juan Creek	Irrig. Domestic	7 acres by flooding and sprinkler 12 persons	530	Riparian	--	--	1870	Gravity; earth and log dam 5 feet high, 14 feet long, with 0.4 mile of earth ditch.	Former owners: Hustie, Halatone, Ethel W. Carpenter.
5N/6E-30D1 (Sheet 14)	Jack H. Shaw, Sr.	Pelletreau Creek	Domestic	23 connections*	Not meas.	Approp.	4,500 gpd	A-10704 ^b	1937	Gravity; concrete and timber dam 8 feet high, 30 feet long, with 12- and 4-inch pipeline.	Former owners: J. King, Armstrong, Dehart, Fisher, Kimberling, Crowl. Supplies community of Del Loma.
6N/5E-14G1 (Sheet 11)	Everett Fountain	Trinity River	Irrig.	31 acres by sprinkler*	26	Riparian	--	--	1937	Pump; 20-hp motor with 0.4 mile of 6-inch pipe to small reservoir.	Area irrigated received supplemental supply from springs near reservoir.
6N/6E-16G1 (Sheet 11)	Frank Wallen	Hawkins Creek	Irrig. Domestic (c)	6 acres by flooding (c)	364	Riparian	--	--	About 1887	Gravity; log and rock dam 6 feet high, 15 feet long, with 0.4 mile of earth ditch and 12-inch pipe.	Former owner: Irving Ranch.
6N/6E-21L1 (Sheet 11)	Mrs. Brizard Holcome	Hawkins Creek	Irrig. Domestic (c)	10 acres by flooding and sprinkler (c)	500	Riparian	--	Deed	1920	Gravity; rock dam 2 feet high, 4 feet long, with 200 feet of 5-inch pipe and 0.5 mile of earth ditch.	Former owners: Smith, Brizard.

* See remarks

-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
		Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
BURNT RANCH SUBUNIT (Continued)										
H B & M 6N/6E-21N1 (Sheet 11)	Anderquist Lumber Company, Inc.	Hawkins Creek	Indust. Irrig. Domestic	Lumber mill 10 acres by flooding 9 families	250	(f)	--	1887	Gravity; rock and gravel dam 1 foot high, 4 feet long, with 0.2 mile of earth ditch and 24-inch pipe.	Former owners: Smith, Brizard, Ambrose, Cedar Creek Ranch.
6N/6E-23C1 (Sheet 11)	Jim Irving	Gray Creek *	Irrig.	9 acres by sprinkler	20	(f)	--	1922	Gravity; rock dam with 0.5 mile of 3- and 2-inch pipe.	Gray Creek also known as Swanson Creek.
6N/6E-24K1 (Sheet 11)	Per O. Berg	Tributary to Trinity River	Mining Domestic (c)	Placer mine	Not meas.	Riparian	--	1922	Gravity; gravel dam with 0.2 mile of earth ditch.	Former owner: Walter Badley.
M D B & M 33N/12W-37P1 (Sheet 18)	A. E. Hostetter	Big Bar Creek	Irrig. Mining*	5 acres by flooding and sprinkler	Not meas.	(f)	--	1872	Gravity; concrete dam 4 feet high, 40 feet long, with 1.2 miles of earth ditch.	Former owners: Lovejoy, Abbot, Ivy. Operated placer mine until 1955.
33N/12W-5N1 (Sheet 18)	Clyde C. Kennedy William F. Manlove	Price Creek	Irrig. Domestic (c)	7 acres by flooding and sprinkler	479	Approp. *	0.41 cfs A-13206 ^b	Prior 1907	Gravity; log dam 4 feet high 15 feet long, with 0.7 mile of earth ditch.	Former owner: Tinsley. Appropriative water right in name of Richard R. and Robert H. Kennedy.
33N/12W-6A1 (Sheet 18)	Ernest Duncan	Trinity River	Irrig.	5 acres by flooding	5	Riparian	--	1947	Pump; 5-hp motor with a short 5-inch pipeline.	Former owners: R. Riley, Wilshire, Patterson.
33N/12W-6C1 (Sheet 18)	Kurt Bennet	Patterson Gulch	Mining	Placer mine	Not meas.	Riparian	--	About 1860	Gravity; earth dam 10 feet high, 30 feet long, with spill to sluice box.	
33N/12W-6F1 (Sheet 18)	Kurt Bennet	Patterson Gulch	Mining	Placer mine	1,160*	--	--	About 1860	Gravity; timber dam 4 feet high, 4 feet long, with 0.2 mile of earth ditch to small reservoir and 24-inch pipeline from reservoir to area of use.	Diversion amount reported includes all water diverted by 4N/8E-9C1, and 33N/12W-6L1.
33N/12W-6L1 (Sheet 18)	Kurt Bennet	Tributary to Trinity River	Mining	(*)	(*)	--	--	About 1860	Gravity; gravel and timber dam 3 feet high, 5 feet long, with 0.2 mile of earth ditch joining with 33N/12W-6F1 at small reservoir.	Amount diverted and details of use reported under 33N/12W-6F1.
34N/11W-31A1 (Sheet 15)	John Q. and Anna E. Terry	Logan Gulch Creek	Power Domestic Mining	-- (c) Placer mine	Not meas.	Approp.	2.0 cfs A-9038 ^b	1937	Gravity; rock and concrete dam 4 feet high, 7 feet long, with 200 feet of 3-inch pipe.	Former owner: M. L. Anderson.
34N/12W-31N1 (Sheet 15)	V. Blair Bryan Ehrbridge G. W. Monroe C. Stone J. E. Swink	Deer Creek	Domestic	6 connections *	Not meas.	Approp.	500 MI Deed	About 1870	Gravity; wood head gate with 0.3 mile of 8- and 3-inch pipe	Supplies community of Big Bar.

* See remarks
-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)

DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	References			
HAYFORK CREEK SUBUNIT											
N B & M 3N/7E-1411 (Sheet 20)	Grover A. and Emma E. Gates	Gates Creek *	Irrig.* (*)	5 acres by flooding	30	Approp.	0.2 cfs	A-5765 ^b	1917	Gravity; rock and earth dam 2 feet high, 25 feet long, with 0.4 mile of earth ditch.	Former owner: Bob McKay. Gates Creek also known as Little Corral Creek. Water did not reach area of use due to transportation losses in ditch. Previously irrigated 14 acres by flooding.
3N/7E-2021 (Sheet 20)	William Macumber, Sr.	Goe Creek	Irrig. Domestic (c)	5 acres by flooding	10	Approp.	--	--	1907	Gravity; gravel and rock dam 3 feet high, 10 feet long, with 0.2 mile of earth ditch to small reservoir.	Former owners: Goe, Johnson, Mosher, Ulrich.
3N/7E-2701 (Sheet 20)	Grover A. and Emma E. Gates	Grassy Flat Creek	Irrig. Domestic	15 acres by sprinkler 160 persons	319	Riparian	--	--	About 1890	Gravity; gravel and sand dam 1 foot high, 10 feet long, with 0.5 mile of earth ditch and 3-inch pipe.	Former owners: Dan Goe, William Shules.
4N/7E-2421 (Sheet 17)	Glen Mitchell	Corral Creek	Irrig.	61 acres by sprinkler and flooding	300	Riparian	--	Deed	1857	Gravity; timber and earth dam 3 feet high, 20 feet long, with 0.1 mile of earth ditch.	Diversion relocated to present location in 1951.
HAYFORK VALLEY SUBUNIT											
M D B & M 31N/12W-441 (Sheet 24)	Eugene T. and Bertha C. Phares	Hayfork Creek	Irrig.	29 acres by sprinkler	21	Approp.	0.38 cfs	A-18080 ^b	Prior 1956	Pump; short 4-inch pipeline.	
31N/12W-581 (Sheet 24)	Eugene T. and Bertha C. Phares	Drinkwater Gulch	Irrig.* (*)		None	Approp.	--	--	About 1857	Gravity; 0.1 mile of earth ditch to small reservoir.	Former owner: Drinkwater. Irrigated 16 acres by flooding until logging operation damaged diversion works in 1956.
29N/11W-101 (Sheet 29)	Clearwater Ditch L. W. Schiell	Hayfork Creek	Irrig.	24 acres by flooding	1,254	Riparian	--	--	1885	Gravity; log and sandbag dam with 0.7 mile of earth ditch.	Former owner: Ed Landis.
29N/11W-1P1 (Sheet 29)	George E. Riewert	Goode Creek	Irrig. Domestic (c)	10 acres by flooding	405	Riparian	--	--	1885	Gravity; rock and log dam with 0.2 mile of earth ditch.	Former owners: Garcia, Brown.
29N/11W-11A1 (Sheet 29)	George E. Riewert	Hayfork Creek	Irrig. Stock.	4 acres by flooding 50 head	202	Riparian	--	--	1885	Gravity; rock and log dam with 300 feet of 14-inch pipe and 0.3 mile of earth ditch.	Former owners: Garcia, Brown.
29N/11W-11H1 (Sheet 29)	Ralph L. Smith Lumber Company	Hayfork Creek	Indust.	Lumber mill pond	392	Approp.	3.0 af storage	A-14345 ^b	1948	Gravity; rock and concrete dam with 0.2 mile of earth ditch and 200 feet of 24-inch pipe.	Former owner: Wildwood Lumber Company.

* See remarks

-- Information not available

For lettered footnotes, see last page of table.

TABLE 5 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
HAYFORK VALLEY SUBUNIT (Continued)											
H D B & M											
29N/11W-11H2 (Sheet 29)	Ralph L. Smith Lumber Company	Hayfork Creek	Indust.	Lumber mill boilers	Not meas.	Approp.	0.9 cfs	A-11J345b	1951	Gravity; concrete box with 0.3 mile of 6-inch pipe.	
30N/11W-12D1 (Sheet 27)	Woodbury Ditch Harold Jackson Ranch	Hayfork Creek	Irrig. Domestic Stock.	40 acres by flooding (c) 80 head	1,611	Riparian	--	--	About 1880	Gravity; log and timber dam with 0.3 mile of 15-inch pipe and 1.7 miles of earth ditch.	Former owner: Woodbury.
30N/11W-17P1* (Sheet 27)	Burton Byard	Salt Gulch	Irrig.	(*)	30*	(f)	--	--	Prior 1951	Gravity and storage; earth dam 35 feet high, 125 feet long, with 350 feet of earth ditch to connection with 30N/11W-20E1.	Point of diversion moved 500 feet downstream to present location when reservoir was built in 1951. Amount diverted used to supplement 30N/11W-20E1.
30N/11W-19A1 (Sheet 27)	Burton Byard	Salt Creek	Irrig.	16 acres by sprinkler	18	Riparian	--	--	1956	Pump on tractor; 350 gpm with a short 5-inch pipeline.	
30N/11W-20E1 (Sheet 27)	Burton Byard	Salt Creek	Irrig. Stock.	20 acres by flooding* 20 head	305	(f)	--	--	Prior 1951	Gravity; gravel dam with 0.9 mile of earth ditch.	Portion of area irrigated received supplemental supply from 30N/11W-17P1.
30N/12W-12E1 (Sheet 27)	George J. and Ruth S. Kuryez	Salt Creek	Irrig.	10 acres by flooding	748	Riparian	--	--	Prior 1957	Gravity; gravel dam with 0.5 mile of earth ditch.	Former owners: Cuff, Wesella, Rovens.
30N/12W-13E1* (Sheet 27)	William C. Dunkin	Ditch Gulch	Irrig.	12 acres by flooding	76	(f)	--	--	Prior 1950	Gravity; rock dam with 0.5 mile of earth ditch.	Diversion moved to present location in 1950.
31N/11W-1Q1 (Sheet 24)	R. Devore	Duncan Creek	Irrig.	7 acres by flooding	399	Riparian	--	--	Prior 1900	Gravity; rock and earth dam with 0.5 mile of earth ditch.	Former owners: Richard Mack, William Sharp, Joseph Enos, Thomas Sinclair.
31N/11W-3N1 (Sheet 24)	H. Leo Towell*	Carr Creek	Irrig.	7 acres by flooding	Not meas.	Riparian	--	--	1890	Gravity; earth dam with 0.1 mile of earth ditch.	Former owners: Lafayette Grigsby, James E. Dockery, Sr., James E. Dockery, Jr., Marie M. Steadman, Albert E. Henderson, Benjamin Taylor. Ownership changed from H. Leo Towell to Roy and Doris Detillion in 1958.
31N/11W-1Q1 (Sheet 24)	William Deinhoff	Barker Creek	Irrig. Domestic	9 acres by flooding (c)	207	Riparian	--	--	Prior 1870	Gravity; earth and log dam with 0.1 mile of earth ditch.	Former owners: Barker, John Enos, William Trumble.
31N/11W-7A1 (Sheet 24)	Clarence H. Crawford	Big Creek	Irrig. Stock.	76 acres by flooding 600 head	1,139	Riparian	--	--	Prior 1890	Gravity; earth and rock dam with 0.5 mile of earth ditch.	Former owners: John Hailstone, William Goetz, O'Keefe, Isaac Moxon.

* See remarks
 -- Information not available
 For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTORS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plot 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
M D B & M											
31N/11W-7H1 (Sheet 24)	Trinity County Water Works District No. 1	Big Creek	Munic.	240 connections*	274	Approp.	2.0 cfs	A-11703b	1953	Pump; 500 gpm and 250 gpm with 1.5 miles of 8-inch pipe to 1,000,000-gallon storage reservoir.	Supplies community of Hayfork.
31N/11W-9B1 (Sheet 24)	Doris Detillion Charles Grotzman	Barker Creek	Irrig. Stock.	25 acres by flooding and sprinkler 17 head	508	Riparian	--	--	Prior 1900	Gravity; log and rock dam with 0.5 mile of earth ditch.	
31N/11W-9C1 (Sheet 24)	Doris Detillion Charles Grotzman	Hayfork Creek	Irrig.	18 acres by sprinkler	Not meas.	Riparian	--	--	1956	Pump; tractor powered with 4-inch pipeline.	
31N/11W-15B1 (Sheet 24)	Doris Detillion Charles Grotzman	Hayfork Creek	Irrig.	13 acres by flooding	Not meas.	Riparian	--	--	Prior 1900	Gravity; rock dam with 1.1 miles of earth ditch.	
31N/12W-3N1 (Sheet 24)	R. Beamer	Knowles Gulch	Irrig. Stock.	9 acres by flooding* 150 head	14	Riparian	--	--	Prior 1954	Gravity and storage; earth dam with 0.5 mile of earth ditch.	Former owners: Smith, Knowles, Big Creek Ranch. Area irrigated received supplemental supply from 31N/12W-10C1. Previously irrigated an additional 37 acres by flooding.
31N/12W-9C1 (Sheet 24)	Waldo I. Jones	Bar Gulch	Irrig.	6 acres by flooding	Not meas.	Approp.	100 MI	Bk. 1 of Wat. Ret. Pg. 155d	1889	Gravity; earth dam with 0.1 mile of earth ditch.	Former owners: A. J. Van Meter, Charles Lafranchini, Clarence Lafranchini, Lawrence Lafranchini.
31N/12W-9H1 (Sheet 24)	Waldo I. Jones	Hayfork Creek	Irrig.	14 acres by flooding and sprinkler	156	Riparian	--	--	1956	Pump; 25-hp motor with short 8- and 10-inch pipeline to system reservoir.	
31N/12W-9K1 (Sheet 24)	Waldo I. Jones	Digger Gulch	Irrig.	30 acres by flooding	Not meas.	(f)	--	--	1896	Gravity; earth dam with 0.1 mile of earth ditch.	Former owners: William O. Vaughn, R. W. Cuff, Clarence Lafranchini, Elrod, Allen Lafranchini.
31N/12W-10C1 (Sheet 24)	R. Beamer	Tributary to Hayfork Creek	Irrig.	(*)	Not meas.*	Riparian	--	--	1954	Gravity; earth dam 16 feet high, 130 feet long, with 0.2 mile of earth ditch.	Amount diverted used to supplement 21N/12W-3N1.
31N/12W-10N1 (Sheet 24)	Allen Lafranchini	Tule Creek	Irrig.	12 acres by flooding	Not meas.	Approp.	--	--	Prior 1870	Gravity; log and earth dam 3 feet high, 45 feet long, with 0.3 mile of earth ditch.	Former owners: Willie H. Vaughn, William O. Vaughn, Kellogg.
31N/12W-11E1 (Sheet 24)	Frieda Albies	Bean Gulch	Irrig.	(*)	Not meas.*	Riparian	--	--	About 1927	Gravity; 0.2 mile of earth ditch.	Former owners: Karl Albies, Sr., Karl Albies, Jr. Amount diverted used to supplement 31N/12W-11N1.
31N/12W-11L1 (Sheet 24)	Norgaard Sawmill	Hayfork Creek	Indust.	Lumber mill	232	Riparian	--	--	1947	Pump; 20-hp motor with 80 feet of 6-inch pipe.	

* See remarks
-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTORS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
<u>M D B & M</u>						HAYFORK VALLEY SUBUNIT (Continued)					
31N/124-11M1 (Sheet 24)	Frieda Albies	Hayfork Creek	Irrig.	27 acres by flooding*	38	Approp.	0.62 cfs	A-1616 ^b	About 1925	Pump; 15-hp motor with 200 feet of 6-inch pipe and 0.2 mile of earth ditch.	Former owners: Karl Albies, Sr., Karl Albies, Jr. Area irrigated received supplemental supply from 31N/124-11E1.
31N/124-11M2 (Sheet 24)	W. J. Hawkins and Sons	Hayfork Creek	Indust.	Lumber mill	10	Riparian	--	--	1946	Pump; 5-hp motor with 50 feet of 4-inch pipe.	
31N/124-11R1 (Sheet 24)	Trinity Alps Lumber Company	Kingsbury Gulch	Indust.	Lumber mill*	1,316	Approp.	--	--	Prior 1890	Gravity; gravel dam with short earth ditch.	Former owners: Clarence H. Crawford, Big Creek Ranch. Received supplemental supply from 31N/124-12Q1.
31N/124-12Q1 (Sheet 24)	Trinity Alps Lumber Company	Hayfork Creek	Indust.	Lumber mill	1,386*	Approp.	--	--	Prior 1890	Gravity; gravel dam with 1.9 miles of earth ditch.	Former owners: Clarence H. Crawford, Big Creek Ranch. Amount diverted Supplemented 31N/124-11R1.
31N/124-16S1 (Sheet 24)	Allen Lafranchini	Tule Creek	Irrig.	30 acres by flooding	Not meas.	Approp.	--	--	Prior 1871	Gravity; gravel and timber dam 2 feet high, 20 feet long, with 20 feet of 18-inch pipe and 0.8 mile of earth ditch.	Former owners: William O. Vaughn, Willis H. Vaughn, Kellog.
31N/124-21E1 (Sheet 24)	Floyd Halbert Luda Landaker	West Tule Creek	Irrig.	12 acres by flooding	10	Riparian	--	--	About 1880	Gravity; rock and timber dam 5 feet high, 5 feet long, with 0.1 mile of earth ditch.	Former owners: Ahart, Albies, Morrissey.
31N/124-21F1 (Sheet 24)	Floyd Halbert Luda Landaker	West Tule Creek	Irrig.	36 acres by flooding	293	Riparian	--	--	About 1880	Gravity; gravel dam 4 feet high, 15 feet long, with 0.3 mile of earth ditch.	Former owners: Ahart, Albies, Morrissey.
31N/124-23J1 (Sheet 24)	J. D. Rourke Mrs. William Egan	Salt Creek	Irrig.	44 acres by sprinkler*	49	Approp.	600 MI	--	1863	Pump; 20-hp motor with 4-inch pipeline.	Irrigated an additional 40 acres by sprinkler until 1957.
31N/124-28Q1 (Sheet 24)	Hugh Hall	Tule Creek	Irrig.	15 acres by flooding	494	Riparian	--	Deed	About 1915	Gravity; concrete dam 10 feet high, 25 feet long, with 0.5 mile of earth ditch.	Former owners: Trask, Smith, Turner, Wesella.
31N/124-36C1 (Sheet 24)	James Duncan	Salt Creek	Irrig.	12 acres by sprinkler	5	Riparian	--	--	1950	Pump; 7.5-hp motor with short 2-inch pipeline	
31N/124-36F1 (Sheet 24)	Ralph and Gertrude Patton	Mill Gulch	Irrig.	8 acres by flooding	30	(f)	--	--	Prior 1957	Gravity; earth dam with 0.5 mile of earth ditch.	
32N/104-31F1 (Sheet 21)	James H. and Mildred Seay	Shock Creek	Irrig.	6 acres by flooding	28	Riparian	--	--	Prior 1940	Gravity; small dam with 0.1 mile of earth ditch.	Former owners: Shock Ranch, Lambert, Calvetta.

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TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
<u>M D B & M</u>											
32N/104-31R1 (Sheet 21)	James H. and Mildred Seay	Summit Creek	Irrig.	5 acres by flooding	3	Riparian	--	--	Prior 1940	Pump; 15-hp tractor-powered pump with a short 4-inch pipeline.	Former owners: Shock Ranch, Lambert, Calvetta.
32N/11W-19F1 (Sheet 21)	James R. Wood	Schultz Creek	Mining Power Domestic	One No. 2 hydraulic giant 2.5 kilowatts Domestic (c)	230	Approp	0.23 cfs	A-11501b	1911	Gravity; earth dam 20 feet high, 25 feet long, with 0.4 mile of 15-, 10-, and 6-inch pipe.	
32N/11W-28K1 (Sheet 21)	Clarence H. Crawford	Barker Creek	Irrig.	21 acres by flooding-	103	Riparian	--	--	About 1890	Gravity; earth dam with concrete head gate and 0.3 mile of earth ditch.	Former owners: John Hallstone, William Goetz, O'Keefe, Isaac Moxon.
32N/11W-30Q1 (Sheet 21)	Clarence H. Crawford	Big Creek	Irrig. Domestic Stock	406 acres by flooding (c) 600 head	2,228* (180)	Riparian	--	--	About 1890	Gravity; rock and earth dam with 12-inch semi-circular flume, 0.2 mile of 10- and 4-inch pipe and 1.7 miles of earth ditch.	Former owners: John Hallstone, William Goetz, O'Keefe, Isaac Moxon. Amount in parentheses is total of measurements made in 1958.
32N/11W-33K1 (Sheet 21)	Clarence H. Crawford	Barker Creek	Irrig.	9 acres by flooding	100	Riparian	--	--	About 1890	Gravity; 0.1 mile of earth ditch.	Former owners: John Hallstone, William Goetz, O'Keefe, Isaac Moxon.
32N/11W-35L1 (Sheet 21)	Francis Ditch J. R. Morris	Carr Creek	Irrig. Stock	11 acres by flooding 35 head	232	Riparian	--	--	About 1870	Gravity; timber and earth dam with 0.6 mile of earth ditch to small reservoir.	
						<u>HELENA SUBUNIT</u>					
32N/104-50L (Sheet 21)	Sam Alexander, Jr.	Maple Creek	Mining*	(*)	None	(f)	--	--	1931	Gravity; 0.3 mile of earth ditch.	Former owner: C. L. Kunkler. Operated No. 1 hydraulic giant until 1957.
32N/104-55L (Sheet 21)	Sam Alexander, Jr.	Dutch Creek	Mining* Irrig.*	(*)	None	(f)	--	--	1931	Gravity; 0.3 mile of earth ditch.	Former owner: C. L. Kunkler. Irrigated 10 acres jointly with 32N/104-54L and supplied hydraulic giant until 1957.
32N/104-60L (Sheet 21)	Sam Alexander, Jr.	Dutch Creek	Mining* Irrig.*	(*)	None	(f)	--	--	1933	Gravity; 0.5 mile of earth ditch.	Former owner: C. L. Kunkler. Irrigated 10 acres jointly with 32N/104-55L and supplied placer mine until 1957.
33N/104-60L (Sheet 18)	Charles J. and Catherine I. Carr	Clear Gulch	Irrig. Domestic	4 acres by flooding (c)	Not meas.	Approp.	0.015 cfs	A-16290b	1955	Gravity; earth and timber dam 4 feet high, 12 feet long, with 0.2 mile of earth ditch.	
33N/104-71L (Sheet 18)	Emily Gribble	Oregon Gulch	Irrig.*	(*)	None	Riparian	--	--	Prior 1957	Pump on tractor; 3-inch pipeline.	Irrigated 18 acres by flooding until 1957.

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TABLE 5 (Continued)
DESCRIPTORS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
M D R & M					HELENA SUBUNIT (Continued)						
33N/10W-8H1 (Sheet 18)	Emily Gribble	Slattery Gulch	Irrig.*	(*)	None	Approp.	--	--	About 1920	Storage; earth dam 15 feet high, 50 feet long.	Irrigated 9 acres by flooding until pipeline abandoned in 1957.
33N/11W-31L (Sheet 18)	Reo D. Stott	Conner Creek	Recr. Mining*	Fish pond (*)	1,360	Approp.	20 MI	--	Prior 1914	Gravity; log and earth dam with 1 mile of earth ditch.	Former owner: B. Gilzean. Operated a placer mine until 1957.
33N/11W-25A1 (Sheet 18)	Chapman Brothers	Soldier Creek	Irrig. Domestic Stock. Power Mining*	9 acres by flooding (c) 35 head 3 kilowatts (*)	1,130	Approp.	3.0 cfs 0.35 cfs	A-9632 ^b	1875	Gravity; rock and earth dam with 0.4 mile of earth ditch, 0.4 mile of 15-inch pipe to small reservoir and 6-inch pipe to powerplant.	Appropriate water right of 3 cfs is for mining, 0.35 cfs is for domestic and irrigation. Diversion was not used for mining in 1957.
33N/11W-1B1 (Sheet 15)	Hardy F. Fisher	Fisher Gulch	Mining	No. 2 and No. 3 hydraulic giants	Not meas.	Approp.	2.0 cfs	A-11597 ^b	1946	Gravity; log dam 4 feet high, 12 feet long, with earth ditch.	
33N/11W-1H1 (Sheet 15)	Junction City Power use; Pacific Gas and Electric Company	Canyon Creek	Power	2,900 kva	20,600	Approp.	3,500 MI	--	1882	Gravity; timber-faced, gravel-filled, log-crib dam 20 feet high, 75 feet long, with 6 miles of earth ditch, 1.5 miles of steel flume, and 0.4 mile penstock.	Former owner: Western States Gas and Electric Company.
33N/11W-16H1 (Sheet 15)	David E. Montgomery	Fox Gulch	Mining	No. 1 hydraulic giant	256	Approp.	3.0 cfs	A-12311 ^b	Prior 1948	Gravity; wood head gate with 0.7 mile of earth ditch.	
33N/11W-26H1 (Sheet 15)	Edward J. and Ruth E. Russell	West Valdor Gulch	Irrig. Domestic (c)	5 acres by flooding	53	Approp.	0.16 cfs	A-11181 ^b	1945	Gravity; concrete dam with 0.3 mile of 5-inch pipe.	Former owners: Payne, Peacock.
33N/11W-29B1 (Sheet 15)	Bryan Hinters	Ritterbush Gulch	Irrig. Domestic	6 acres by sprinkler 10 connections*	40	Riparian	--	Deed	1852	Gravity; rock dam 1 foot high, 3 feet long, with 0.3 mile of 6-, 4-, and 2-inch pipe.	Former owners: Scholmer, Stofter, Cramer, Weed, Curries. Supplies community of Helena.
33N/11W-29B2 (Sheet 15)	Bryan Hinters	Ritterbush Gulch	Irrig. Domestic (c)	8 acres by sprinkler	70	Riparian	--	--	1852	Gravity; rock dam with 0.3 mile of 6-inch pipe.	Former owners: Mekles, Scholmer.
35N/10W-19Q1 (Sheet 12)	Joseph J. Spears	Jones Gulch*	Mining Domestic Power	Placer mine (c) 3 kilowatts	130	Approp.	2,500 gpd	A-10920 ^b	About 1910	Gravity; short 12-inch pipeline with 0.1 mile of earth ditch.	Former owners: J. H. Wickline, Gilzean. Jones Gulch also known as Murphy Gulch.
35N/10W-20B1 (Sheet 12)	Grover D. Fullerton	Canyon Creek	Irrig. Power	6 acres by flooding 25 kilowatts (*)	1,431	Approp.	--	--	About 1868	Gravity; rock dam 3 feet high, 15 feet long, with 0.3 mile of earth ditch.	Former owners: F. Wilson, Akerman, B. Goodwin.
35N/10W-27H1 (Sheet 12)	Canyon Creek Enterprises	Little East Fork Canyon Creek	Mining* Domestic (*)		None	Approp.	2.5 cfs 1,400 gpd	A-11121 ^b A-12876 ^b	1946 1949	Gravity; timber and rock dam with 0.5 mile of earth ditch and 0.3 mile of 2-inch pipe.	Former owners: L. L. Turney, D. Freeman. Supplied 6 domestic connections and a placer mine until 1957.

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TABLE 5 (Continued)
DESCRIPTORS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
<u>M D B & M</u>					<u>HELENA SUBUNIT (Continued)</u>						
35N/10W-29N1 (Sheet 12)	Ray and Roy DeHaven	Big East Fork Canyon Creek	Mining	Placer mine	1,050	Riparian	--	--	1923	Gravity; rock and gravel dam 3 feet high, 12 feet long, with wood flume and earth ditch.	Former owners: Danenbrink, Canyon Placer, Inc.
<u>H B & M</u>						<u>HOOPA SUBUNIT</u>					
7N/5E-7N1 (Sheet 8)	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Campbell Creek	Domestic	20 connections	367* (242)	Riparian	--	--	1935	Gravity; concrete box with short 12-inch pipeline and 2 miles of earth ditch.	Amount in parentheses is total of measurements made in 1958.
7N/7E-7F1 (Sheet 8)	Orover and Willard Ladd	East Fork Horse Linto Creek	Irrig. (*)		(*)	Approp.	--	--	Prior 1900	Gravity; rock dam 1 foot high, 5 feet long, with 150 feet of 5-foot diameter tunnel to Quibby Creek and 5 miles of stream channel to 7N/7E-28N1.	Former owner: R. L. Thomas. Amount diverted and details of use reported under 7N/7E-28N1 (New River Subunit).
8N/4E-2P1 (Sheet 5)	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Mill Creek	Irrig. Indust. Domestic	162 acres by flooding 2 lumber mills 20 connections	2,872* (897)	(f)	--	--	About 1860	Gravity; concrete dam 1 foot high, 20 feet long, with 3.7 miles of concrete lined ditch, wood flume, and earth ditch.	Portion of amount diverted supplements 8N/4E-13N1. Amount in parentheses is total of measurements made in 1958.
8N/4E-10P1 (Sheet 5)	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Socktish Creek	Irrig. Domestic	9 acres by flooding 7 connections	466* (138)	Riparian	--	--	1976	Gravity; concrete dam 3 feet high, 30 feet long, with 370 feet of 24-inch pipe and 0.1 mile of earth ditch.	Amount in parentheses is total of measurements made in 1958.
8N/4E-13N1 (Sheet 5)	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Hostler Creek	Irrig. Indust. Domestic	15 acres by flooding Lumber mill 5 connections	865	(f)	--	--	1935	Gravity; rock and timber dam 10 feet high, 50 feet long, with 24-inch pipeline and 1 mile of earth ditch.	Received supplemental supply from 8N/4E-28L.
8N/4E-13W2 (Sheet 5)	Barbara Marshall	Hostler Creek	Irrig.* Domestic*	(*) (*)	Not meas.	Approp.	0.45 cfs	A-4913b	1906	Gravity; earth dam 8 feet high, 150 feet long, with 250 feet of wood flume and 1.5 miles of earth ditch.	Former owners: James Marshall, Sr., Mahlen Marshall. Irrigated 6 acres by flooding and supplied a small domestic use until 1956.

* See remarks
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TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plot 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
HOOPA SUBUNIT (Continued)											
H B & N											
8N/1E-2621 (Sheet 5)	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Supply Creek	Munic.	130 connections*	Not meas.	(f)	--	--	About 1910	Gravity; concrete dam 10 feet high, 10 feet long, with 0.6 mile of 8-inch pipe to a 15,000-gallon storage reservoir.	Supplies community of Hoopa.
8N/1E-2622 (Sheet 5)	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Supply Creek	Irrig. Domestic (c)	6 acres by flooding	715 (121)	Riparian	--	--	Prior 1938	Gravity; concrete dam 6 feet high, 50 feet long, with 1.1 miles of earth ditch.	Amount in parentheses is total of measurements made in 1958.
8N/5E-1511 (Sheet 5)	Van Fleet Wood Products	Trinity River	Indust.	Lumber mill	Not meas.	(f)	--	--	1946	Pump; 25-hp motor with 0.2 miles of 6-inch pipe.	Former owner: Sugar Pine Company.
9N/5E-1171 (Sheet 3)	George W. Nelson	Little Red Gap Creek	Mining	No. 1 hydraulic giant	Not meas.	Approp.	1.0 cfs	A-7137 ^b	About 1920	Gravity; 0.3 mile of earth ditch.	Former owners: John Seidell, Ed Pratt.
HYAMPOM SUBUNIT											
3N/5E-2711 (Sheet 20)	Nellie E. Nortenson	Big Creek	Irrig.	8 acres by flooding	461	Riparian	--	--	Prior 1906	Gravity; gravel and rock dam 3 feet high, 20 feet long, with 0.2 mile of earth ditch.	Former owners: William X. Garrett, Sr., Porter, Trimble, Joe Givens.
3N/5E-1511 (Sheet 20)	William Garrett, Jr.	South Fork Trinity River	Irrig.	7 acres by sprinkler	11	Riparian	--	--	About 1943	Pump; 7.5-hp motor with short pipeline.	
3N/5E-1511 (Sheet 20)	William Garrett, Jr.	South Fork Trinity River	Irrig.	12 acres by flooding	60	Riparian	--	--	About 1943	Pump; 5-hp motor with short pipeline.	
3N/5E-1611 (Sheet 20)	William Garrett, Jr.	Mill Creek	Irrig. Indust.	5 acres by flooding Lumber mill	312	(f)	--	--	Prior 1900	Gravity; rock dam 3 feet high, 6 feet long, with 0.6 mile of earth ditch.	Former owners: Waldorf, Trimble, Joe Givens.
3N/5E-2111 (Sheet 20)	Phyllis Youngblood	Merlin Creek	Irrig. Domestic	44 acres by flooding 8 connections	228	Approp.	--	Deed	Prior 1914	Gravity; rock dam 2 feet high, 20 feet long, with 1.2 miles of earth ditch.	Former owner: Esther Trimble.

* See remarks
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TABLE 5 (Continued)

DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and sheet number	O diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicted date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
<u>H B & M</u>						<u>HYAMPOM SUBUNIT (Continued)</u>					
3N/6E-22F1 (Sheet 20)	Leo Garrett	Kerlin Creek	Irrig.	8 acres by flooding	Not meas.	Approp.	500 MI	--	Prior 1903	Gravity; rock and gravel dam with 0.4 mile of earth ditch.	Former owners: Garrett, Days, Garrett, Steele.
3N/6E-22M1 (Sheet 20)	Thornton Haines	Kerlin Creek	Irrig. Domestic (c)	20 acres by flooding	Not meas.	Approp.	--	--	Prior 1894	Gravity; gravel dam 4 feet high, 10 feet long, with 1.5 miles of earth ditch.	Former owner: Sam Kerlin.
3N/6E-23Q1 (Sheet 20)	Thomas B. Kelly, et al.	South Fork Trinity River	Irrig.	53 acres by flooding	107	Riparian	--	--	1948	Pump; 30-hp motor with short 10-inch pipeline.	
3N/6E-24B1 (Sheet 20)	Thomas B. Kelly, et al.	Olsen Creek	Irrig.* (*)		50	Approp.	--	--	1870	Gravity; rock and gravel dam with 0.5 mile of earth ditch.	Former owner: Olsen. Water did not reach area of use due to transportation loss in ditch. Previously irrigated 6 acres by flooding.
3N/6E-24B1 (Sheet 20)	Robert L. and M. A. Augustine	Olsen Creek	Irrig.* (*)		None	Approp.	0.17 ofs	A-116591b	1894	Gravity; earth dam with 0.1 mile of ditch.	Former owners: Griffiths, Goe Boyce, Carr. Irrigated 8 acres by flooding until 1957.
3N/6E-25B1 (Sheet 20)	Gene Greenleaf	Hayfork Creek	Irrig.	4 acres by flooding	10	Anprop.	0.55 ofs	A-9173b	About 1937	Pump; 20-hp motor with short 12-inch pipeline.	Former owners: Minerva Brooks, Greenleaf, Russel.
3N/6E-27A1 (Sheet 20)	Leo F. Amort	Pelletreau Creek	Irrig. Domestic Stock.	18 acres by flooding (c) 22 head	827	(f)	--	--	About 1860	Gravity; concrete, timber, and steel dam 15 feet high, 15 feet long, with 0.6 mile of earth ditch.	Former owners: Pelletreau, Waldorff, Russell, Everest.
<u>LN/6E-16H1 (Sheet 17)</u>						<u>LOWER SOUTH FORK SUBUNIT</u>					
<u>LN/6E-30M1 (Sheet 17)</u>	Jim Trimble	Underwood Creek	Irrig.	21 acres by flooding	140	Riparian	--	--	1922	Gravity; gravel and log dam 2 feet high, 6 feet long, with 0.7 mile of earth ditch.	Former owner: Orahama.
<u>LN/6E-32Q1 (Sheet 17)</u>	William Garrett, Jr.	North Fork Monroe Creek	Irrig.	21 acres by flooding	140	Riparian	--	--	Prior 1900	Gravity; gravel dam with 0.5 mile of earth ditch.	Former owners: John Monroe, William Garrett, Sr.
<u>5N/6E-12B1 (Sheet 11)</u>	Sarah Carpenter	Spring tributary to South Fork Trinity River	Irrig. Domestic Stock.	3 acres by sprinkler (c) 10 head	Not meas.	Approp.	--	--	About 1899	Gravity; rock dam with 0.7 mile of earth ditch.	Former owners: Josephine Gage, Charles Carpenter.
<u>5N/6E-18M1 (Sheet 11)</u>	Max A. Todd	South Fork Trinity River	Irrig. (*)		30*	Riparian	--	--	1953	Pump; 7.5-hp motor with short 4-inch pipeline.	Amount diverted used to supplement 5N/6E-18P1.

* See remarks

— Information not available

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TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
LOWER SOUTH FORK SUBUNIT (Continued)											
H B & M											
5N/5E-18P1 (Sheet 11)	Max A. Todd	Spring tributary to South Fork Trinity River	Irrig. Domestic Stock.	12 acres by sprinkler* (c) 20 head	15	Riparian	--	--	Prior 1953	Gravity; rock dam with 300 feet of 2-inch pipe to 12,000-gallon tank, and 300 feet of 8- and 3-inch pipe.	Area irrigated received supplemental supply from 5N/5E-18N1.
6N/5E-15Q1 (Sheet 11)	Walter M. Gleason	South Fork Trinity River	Indust.	Lumber mill	95	Riparian	--	--	1955	Pump; 150-hp motor with 200 feet of 12-inch pipe.	Former owner: John Perkins. Lessee changed from Pat Veneer Company to Carolina California Plywood, Inc. in 1958.
6N/5E-18J1 (Sheet 11)	William L. and Rosa Morton	North Fork Fourmile Creek	Irrig.	(*)	Not meas.*	Approp.	0.05 cfs	A-2965 ^b	About 1920	Gravity; gravel dam 1 foot high, 10 feet long, with 0.1 mile of earth ditch.	Former owners: Charles Parker, Richard Parker. Amount diverted used to supplement 6N/5E-18R1.
6N/5E-18R1 (Sheet 11)	William L. and Rosa Morton	South Fork Fourmile Creek	Irrig.	11 acres by flooding*	Not meas.	Approp.	0.1 cfs	A-2965 ^b	About 1920	Gravity; timber and gravel dam 1 foot high, 6 feet long, with 0.2 mile of earth ditch.	Former owners: Charles Parker, Richard Parker. Area irrigated received supplemental supply from 6N/5E-18J1.
6N/5E-25D1 (Sheet 11)	Caroline Henderson	Tributary to South Fork Trinity River	Irrig.	4 acres by flooding	Not meas.	Riparian	--	--	Prior 1957	Gravity; rock dam with 0.4 miles of earth ditch.	Former owner: J. A. Koons. Diversion works damaged July 1957.
MIDDLE TRINITY SUBUNIT											
32N/34-30W1 (Sheet 22)	W. R. and W. L. Halverson T. S. Kibel Albert L. and Emily Shapley William and Lilley Williams	North Fork Indian Creek	Power Domestic Irrig.* Mining*	1.5 kilowatts (c) (*) (*)	1,263	Approp.*	0.33 cfs 3.0 cfs	A-10693 ^b	1863	Gravity; sand and gravel dam 2 feet high, 20 feet long, with 0.6 mile of earth ditch.	Former owners: Sigfried, Rogers, Duarte, Johnson. Irrigated 10 acres by flooding and supplied placer mining until 1957. Appropriate water right of 3.0 cfs for mining, 0.33 cfs for domestic and irrigation, in name of Emily Shapley and William and Lilley Williams.
32N/34-4E1 (Sheet 22)	Reo D. Stott	Trinity River	Irrig.*	(*)	None	Riparian	--	--	1890	Pump	Former owner: Vizthum. Irrigated 24 acres by flooding until 1956.
32N/34-5P1 (Sheet 22)	Bert A. Phillips	Indian Creek	Irrig. Stock.	32 acres by flooding 75 head	637	Riparian	--	Deed	1890	Gravity; log and rock dam 1 foot high, 15 feet long, with 1 mile of earth ditch.	Former owners: Vizthum, Albee, Ryum.
32N/34-8Q1 (Sheet 22)	Melvin E. Dale Alvis Rale	Indian Creek	Irrig. Domestic	37 acres by flooding 36 connections	2,895	(f)	--	--	About 1850	Gravity; log and rock dam 5 feet high, 20 feet long, with 2.4 miles of earth ditch and short 12-inch pipe flume.	Former owners: Bennett, Vizthum, Placer Explorations.
32N/34-31Q1 (Sheet 22)	Clifford and Fred Ross	Browns Creek	Irrig.	46 acres by flooding and sprinkler	2,022	Riparian	--	Deed	Prior 1898	Gravity; rock and gravel dam 5 feet high, 60 feet long, with 2 miles of earth ditch.	Former owners: Coumbe, McIntyre, Bigelow, Edgerton.

* See remarks
-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
<u>M D B & X</u>					<u>MIDDLE TRINITY SUBUNIT (Continued)</u>						
32N/94-1361 (Sheet 22)	T. R. Nelson T. Wallace	Reading Creek	Irrig. Mining Domestic	128 acres by flooding Placer mine (c)	1,859 ^a (727)	(f)	--	--	Prior 1903	Gravity; log dam 4 feet high, 30 feet long, with 1.9 miles of earth ditch.	Former owners: O'Connell, Clements, Redding, Hennessey. Amount in parentheses is total of measure- ments made in 1958. Former owner: L. V. Jordan.
32N/104-1081 (Sheet 21)	Bert A. Phillips	Browns Creek	Irrig.	36 acres by sprinkler	54	Riparian	--	Deed	About 1888	Pump; 30-hp motor with short 5-inch pipeline.	
32N/104-1281 (Sheet 21)	United States Plywood Corp.	Trinity River	Indust.	Lumber mill	250	(f)	--	--	About 1950	Pump; 40-hp motor with 0.2 mile of 6-inch pipe.	
32N/104-1391 (Sheet 21)	L. V. Jordan	Browns Creek	Irrig.	15 acres by flooding*	865	Approp.	--	--	About 1860	Gravity; concrete dam 12 feet high, 30 feet long, with 1.2 miles of earth ditch and 300 feet of 10-, 18-, and 30- inch pipe.	Former owners: R. K. Gibson, John Smith. Area irrigated received supplemental supply from 32N/104-1141.
32N/104-1401 (Sheet 21)	L. V. Jordan	Little Creek	Irrig.	19 acres by flooding	994 ^a	Riparian	--	--	About 1860	Gravity; small timber and gravel dam with 1 mile of earth ditch and short wood flume across creek to 32N/104-1391.	Former owner: Gibson Estate. Portion of amount diverted supplements 32N/104-1391.
33N/84-1541 (Sheet 19)	Harold J. and Mary J. Wilson	Deadwood Gulch	Irrig.	25 acres by flooding*	202	Approp.	2.0 cfs	A-1761 ^b	About 1850	Gravity; concrete dam 2 feet high, 15 feet long, with 1 mile of 20-inch pipe and 2 miles of earth ditch.	Former owners: Lewis, Phillips, Frick, Davis, Leavitt. Area irrigated previously received supplemental supply from 33N/84-2011.
33N/84-1741 (Sheet 19)	Ouy F. Atkinson Co.	Trinity River	Munic.	100 persons*	Not meas.	Approp.	0.75 cfs	A-1766 ^b	1957	Pump; 50-hp motor with 8-inch pipeline to 100,000-gallon storage tanks.	Supplies housing development in community of Lewiston.
33N/84-1791 (Sheet 19)	Hard Hate Trailer Park	Trinity River	Domestic	50 connections*	Not meas.	Approp.	0.23 cfs	A-1774 ^b	1957	Pump; 1-hp motor with 1.5- inch pipeline and 1.5-hp motor with 2-inch pipeline.	Supplies trailer park in community of Lewiston.
33N/84-1941 (Sheet 19)	Trinity Alps Land Company	Trinity River	Domestic	75 connections*	Not meas.	Approp.	0.37 cfs	A-1774 ^b	1957	Pump; 8-hp motor with 4-inch pipeline to 12,000-gallon storage tank.	Supplies trailer park in community of Lewiston.
33N/84-1942 (Sheet 19)	United States Bureau of Reclamation	Trinity River	Munic.	800 persons*	Not meas.	Approp.	148 gpm	A-1817 ^b	1957	Pump; two 200-gpm pumps with 0.7 mile of pipeline to 150,000-gallon storage tank.	Supplies housing development in community of Lewiston. Receives supplemental supply from well.
33N/84-2011 (Sheet 19)	Harold J. and Mary J. Wilson	Hoodley Gulch	Irrig.	5 acres by flooding	82 ^a	Riparian	--	--	About 1870	Gravity; earth dam 8 feet high, 70 feet long, with 0.6 mile of earth ditch.	Former owners: Frick, Davis. Previously supplemented 33N/84-1541.
33N/94-1211 (Sheet 19)	William B. Wright	Rush Creek	Irrig. Stock. Domestic Power	18 acres by flooding 12 head (c) (*)	632	Approp.*	0.10 cfs 1.75 cfs	A-1094 ^b	Prior 1907	Gravity; log dam 1 foot high, 25 feet long, with 0.4 mile of earth ditch.	Former owners: Polson, Dominick, Grey, Ricks. Power plant used for stand-by service only. Appropriative water right of 1.75 cfs is for domestic and power, 0.10 cfs is for irrigation.

* See remarks
-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
M D B & M											
33N/94-2621 (Sheet 19)	Henry Durham	Trinity River	Irrig.*	(*)	None	Riparian	--	--	About 1870	Pump; 1/2-hp motor with 2-inch pipeline and earth ditch.	Former owner: Gooding. Irrigated 8 acres by flooding until 1957.
33N/94-2621 (Sheet 19)	Ben Wellock	Grass Valley Creek	Irrig.	3 acres by flooding	72	Riparian	--	--	1935	Gravity; timber dam 4 feet high, 15 feet long, with 30 feet of 12-inch pipe and 0.1 mile of earth ditch.	
33N/94-3501 (Sheet 19)	Bertie I. and Leslie Leas	Grass Valley Creek	Irrig. Domestic	16 acres by flooding (c)	540	Approp.	100 MI	--	About 1954	Gravity; brush and gravel dam 1 foot high, 15 feet long, with short wood flume and 0.6 mile of earth ditch.	Former owners: Fred and Louis Frey.
33N/94-3501 (Sheet 19)	Ralph Leeper Arthur E. Lunden	Grass Valley Creek	Irrig.	87 acres by flooding	1,065	Approp.	125 MI	--	About 1852	Gravity; timber dam 4 feet high, 30 feet long, with 1 mile of earth ditch.	Former owners: Lowden, Siligo, Edwards, Leavitt.
33N/94-3511 (Sheet 19)	Ralph Leeper	Grass Valley Creek	Irrig.*	(*)	None	Approp.	--	--	Prior 1957	Gravity; earth dam with 0.5 mile of earth ditch.	Irrigated 17 acres by flooding until 1957.
33N/104-3571 (Sheet 18)	Floyd and Overer Lorenz	Dutton Creek	Irrig. Stock.	7 acres by flooding 60 head	221	Riparian	--	--	About 1870	Gravity; rock and sandbag dam 1 foot high, 10 feet long, with 0.2 mile of earth ditch.	Former owners: John Hurst, Liason.
34N/94-811 (Sheet 16)	Huston Ditch Frank Costa, et al.	Rush Creek	Irrig. Domestic Mining*	13 acres by flooding and furrow 25 persons (s)	726*	Riparian	--	--	About 1860	Gravity; log and timber dam with 150 feet of 20-inch pipe and 0.6 mile of earth ditch.	Portion of amount diverted supplemental 34N/94-1681. Supplied placer mine until 1957.
34N/94-1691 (Sheet 16)	Junkans Ditch Frank Costa, et al.	Rush Creek	Irrig. Mining*	28 acres by flooding and furrow* (s)	1,214	Approp.	20.5 cfs	A-9229b	About 1860	Gravity; rock dam with 0.6 mile of earth ditch and 26-inch penstock.	Area irrigated received supplemental supply from 34N/94-811 through Bear Gulch. Supplied placer mine until 1957.
34N/94-1601 (Sheet 16)	Frank Costa, et al.	Rush Creek	Mining*	(*)	None	Approp.	22.5 cfs	A-9196b	About 1860	Gravity; log and rock dam with 0.8 mile of earth ditch.	Supplied placer mine until 1957.
NEW RIVER SUBUNIT											
6N/62-1211 (Sheet 11)	Harvie W. Dailey	Panther Creek	Mining Irrig. Domestic	Placer mine 11 acres by flooding (c)	2,017	Approp.	1.25 cfs 7.0 cfs	A-5018b A-10880b	1926 1944	Gravity; 1 mile of earth ditch.	Former owners: Mose Patterson, J. J. Dailey, V. A. Dailey.
6N/62-1211 (Sheet 11)	Viola A. Dailey	Happy Camp Creek	Irrig.	(*)	(*)	(f)	--	--	1862	Gravity; concrete box 3 feet wide, 3 feet high, with 200 feet of earth ditch and 10-inch pipe flume to junction with 6N/62-1212.	Former owners: Mose Patterson, J. J. Dailey. Amount diverted and details of use reported under 6N/62-1212.

* See remarks
-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
NEW RIVER SUBUNIT (Continued)											
H B & M 6N/6E-1212 (Sheet 11)	Viola A. Dailey	Bell Creek	Irrig. Stock, Mining Power	54 acres by flooding 60 head Placer mine 5 kilowatts	786*	(f)	--	--	1862	Gravity; concrete box 3 feet wide, 6 feet high, with sheet metal flume, 300 feet of 12-inch pipe, wood flume, and 1.2 miles of earth ditch.	Former owner: Mose Patterson, J. J. Dailey. Diversion amount reported includes all water diverted by 6N/6E-1212.
6N/6E-3641 (Sheet 11)	R. E. Robards	Dixie Creek	Mining Domestic	Placer mine (c)	Not meas.	Approp.	2.0 cfs	A-6580 ^b	1921	Gravity; earth, rock, and log dam 2 feet high, 10 feet long, with 1.2 miles of earth ditch.	Former owner: Hendricks. Received supplemental supply from 6N/7E-3641.
6N/7E-7J1 (Sheet 11)	Louis A. Maire, et al.	Tributary to New River	Mining	Placer mine*	Not meas.	Approp.	1.80 cfs	A-15740 ^b	About 1930	Gravity; timber and gravel dam 2 feet high, 8 feet long, with 300 feet of wood flume to small reservoir and 300 feet of 12-inch pipe from reservoir to mine.	Former owner: Hendricks. Amount diverted used to supplement 6N/7E-7J1.
6N/7E-8K1 (Sheet 11)	Louis A. Maire, et al.	New River	Mining	(*)	Not meas.*	Riparian	--	--	About 1930	Pump; 67-hp engine with 8-inch pipeline to connection with 6N/7E-7J1 at reservoir.	Former owner: Hendricks. Amount diverted used to supplement 6N/7E-7J1.
7N/7E-28K1 (Sheet 6)	Grover and Willard Ladd	Quincy Creek	Irrig. Mining Power Stock.	22 acres by flooding Placer mine 2 kilowatts 12-head	1,595*	Approp.	3,800 MI	Deed	1870	Gravity; log and gravel dam 10 feet high, 25 feet long, with 1 mile of wood flume.	Former owner: New River Mining Company, Noble, Ammons. Diversion amount reported includes all water diverted by 7N/7E-7J1 (Hoopa Subunit). Additional supply received from Squaw Gulch and Ranchero Creek.
TRINITY RESERVOIR SUBUNIT											
35N/7W-7H1 ^a (Sheet 13)	John Nielsen	Trinity River	Irrig.*	(*)	None	Riparian	--	Deed	1946	Gravity; rock and gravel dam 4 feet high, 100 feet long, with short 30- and 18-inch pipeline and 1 mile of earth ditch.	Irrigated 22 acres by flooding until 1951.
35N/7W-8K1 (Sheet 13)	John Nielsen	Bragdon Gulch	Power	35 kilowatts	818*	Riparian	--	Deed	About 1890	Gravity; earth dam with about 26-inch pipe flume, 450 feet of 24-inch sand-circular metal flume, 1.2 miles of earth ditch, and about 500 feet of 8-inch penstock.	Former owner: Bragdon. Overflow from ditch and release from powerplant supplements 35N/7W-17D1.
35N/7W-17D1 ^a (Sheet 13)	John Nielsen	Bragdon Gulch	Irrig.	33 acres by flooding and sprinkler*	70	Riparian	--	Deed	About 1890	Gravity; earth dam with 0.3 mile of earth ditch.	Former owner: Bragdon. Area irrigated received supplemental supply from 35N/7W-8K1.

* See remarks
-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or sheet number	Owerson name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
TRINITY RESERVOIR SUBUNIT (Continued)											
M D B & M											
35N/34-10L1 (Sheet 13)	Corvington Lumber Company	East Fork of Stuart Fork	Indust. Domestic Power	Lumber mill 150 persons 25 kilowatts	2,131	Approp.	3.0 cfs	A-10792 ^b	About 1870	Gravity; rock dam with 600 feet of 22-inch pipe and 0.4 mile of earth ditch.	Former owner: Wheeler.
35N/34-9L1 (Sheet 13)	Louis J. and Nora M. Kersch	Greenhorn Gulch	Irrig. Stock.	10 acres by flooding	Not meas.	Riparian	--	--	About 1860	Gravity; 0.1 mila of earth ditch.	Former owners: Jake and Anna Bowerman, E. H. and T. E. Hill.
35N/34-10E1 (Sheet 13)	Louis J. and Nora M. Kersch	East Fork of Stuart Fork	Irrig. Domestic Stock.	10 acres by flooding 70 head	256	Approp.	0.25 cfs 2.0 cfs	A-2511 ^b A-11927 ^b	About 1860	Gravity; 0.4 mila of earth ditch.	Former owners: Jake and Anna Bowerman, Goodrich, Goetze, Scharr.
35N/34-10L1 ^a (Sheet 13)	Katherine S. Hubbard Louis J. and Nora M. Kersch	Bowerman Gulch	Irrig. Domestic Stock.	45 acres by flooding (c) 70 head	Not meas.	Approp.*	2.0 cfs	A-16580 ^b	About 1850	Gravity; timber and earth dam 5 feet high, 20 feet wide, with 0.5 mile of earth ditch.	Former owners: Jake and Anna Bowerman, Goodrich, Goetze, Scharr. Appropriative water right in name of Katherine S. Hubbard.
35N/34-19P1 ^a (Sheet 13)	Cedar Stock Ranch Stewart Ralston Graeme Stewart	Mule Creek	Irrig.*	(*)	None	(f)	--	--	Prior 1900	Gravity; 2.5 miles of earth ditch.	Former owners: Thomas Cummings, Antona Caton, Van Cleave, John Boyce. Irrigated 75 acres by flooding until 1956.
35N/34-13L1 (Sheet 13)	Donald and Elizabeth Ranier	Mule Creek	Power Irrig. Domestic	1.8 kilowatts 6 acres by flooding (c)	80	Approp.	0.10 cfs 0.85 cfs	A-5303 ^b A-7651 ^b	About 1920	Gravity; sand, board, and sheet-metal dam with 0.4 mile of earth ditch.	Former owners: A. L. Rix, B. S. Griffin, M. M. Griffin, O. W. Reed, V. Reed.
35N/34-26Q1 ^a (Sheet 13)	Cedar Stock Ranch Stewart Ralston Graeme Stewart	Stony Creek	Domestic Stock*	(*)	None	Approp.	--	--	About 1890	Gravity; 2.5 miles of earth ditch to connection with 35N/34-36H1.	Former owners: Thomas Cummings, Antona Caton, John Boyce. Used to supplement 35N/34-36H1 and to supply 300 head of livestock until 1956.
35N/34-28L1 (Sheet 13)	Trinity Alps Resort Robert and Margaret Delaney	Tributary to Trinity Alps Creek	Irrig. Power Stock.	51 acres by flooding 80 kilowatts 35 head	1,188	Riparian	--	--	1884	Gravity; rock dam with wood flume, short 20-inch pipe, 0.3 mile of 18-inch pipe, and 0.2 mile of earth ditch.	Former owners: Adams, Paulson, Weber, Trinity Alps Corporation.
35N/34-28H1 (Sheet 13)	Trinity Alps Resort Robert and Margaret Delaney	Snowslide Gulch	Domestic	300 persons	Not meas.	Approp.	15,000 gpd.	A-8449 ^b	1924	Gravity; timber and rock dam with 0.3 mila of 8-inch pipe.	Former owner: Weber.
35N/34-36H1 ^a (Sheet 13)	Cedar Stock Ranch Stewart Ralston Graeme Stewart	Cummings Creek	Power Domestic	2.5 kilowatts 25 persons*	30	Riparian	--	--	Prior 1900	Gravity; 0.4 mile of earth ditch to connection with ditch from 35N/34-26Q1 and a 4-inch pipeline to power-plant.	Former owners: Thomas Cummings, Antone Caton, Van Cleave, John Boyce. Received supplemental supply from 35N/34-26Q1 until 1956.
35N/34-36N1 ^a (Sheet 13)	Cedar Stock Ranch Stewart Ralston Graeme Stewart	Stuart Fork	Irrig.*	(*)	None	Riparian	--	--	About 1850	Gravity; 2 miles of earth ditch.	Former owners: Thomas Cummings, Antona Caton, Van Cleave, John Boyce. Irrigated 117 acres by flooding until 1956.

* See remarks
-- Information not available
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TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
TRINITY RESERVOIR SUBUNIT (Continued)											
M D B & M											
36N/64-60L (Sheet 10)	Bud Wagner	Halls Gulch	Irrig. Domestic	35 acres by flooding (c)	2,072	Riparian	--	--	About 1870	Gravity; rock and gravel dam 1 foot high, 20 feet long, with 0.5 mile of earth ditch.	Former owner: Jim Fader.
36N/74-80L ^a (Sheet 10)	Adrian B. and Mary R. Baughou	Mill Creek	Irrig.	9 acres by flooding	337	Riparian	--	--	About 1885	Gravity; log, rock, and sandbag dam 4 feet high, 12 feet long, with 0.1 mile of earth ditch.	Former owners: Scott Conway, Owens, N. S. Dyseert, Keller, Nye.
36N/74-80L ^a (Sheet 10)	E. K. McDonald	Mill Creek	Irrig. Stock	25 acres by flooding 25 head	219	Approp.	--	Deed	About 1880	Gravity; rock and timber dam with 1 mile of earth ditch.	Former owners: W. P. Bassham.
36N/74-90L ^a (Sheet 10)	E. K. McDonald	Swift Creek	Irrig.	6 acres by flooding	102	Riparian	--	--	1910	Gravity; rock and timber dam with 0.2 mile of earth ditch.	Former owner: Mumford.
36N/74-110L ^a (Sheet 10)	Trinity Farm and Cattle Company	East Fork Trinity River	Irrig. Stock	147 acres by flooding 900 head	2,698*	Approp.	--	Deed	About 1860	Gravity; rock and gravel dam 1 foot high, 30 feet long, with 0.8 mile of earth ditch.	Former owner: Erick Peterson. In addition to the diversion amount reported an estimated 510 acre-feet entered ditch from Squirrel Gulch.
36N/74-110L ^a (Sheet 10)	Trinity Farm and Cattle Company	East Fork Trinity River	Irrig. Stock, Indust.	292 acres by flooding 900 head Lumber mill pond	8,108	Approp.	--	Deed	About 1860	Gravity; rock and gravel dam with 1.3 miles of earth ditch.	Former owners: Fader, O'Shea, Hall, Foster, Dr. Grotfend.
36N/74-168L ^a (Sheet 10)	Edwin W. Scott	Springs tributary to Trinity River	Irrig.	22 acres by flooding	80	Riparian	--	--	Prior 1909	Gravity; 250 feet of earth ditch.	
36N/74-170L ^a (Sheet 10)	Constock Ditch Edwin W. Scott	Swift Creek	Irrig. Domestic Stock	123 acres by flooding 85 persons 1140 head	7,802	(f)	--	--	About 1860	Gravity; rock dam with 1.4 miles of earth ditch.	
36N/74-188L ^a (Sheet 10)	Bloss and McClary Ditch W. C. Foster E. K. McDonald, et al.	Swift Creek	Irrig. Domestic	22 acres by flooding and sprinkler 34 connections*	2,967*	Approp.	--	Deed	Prior 1883	Gravity; rock dam with 0.5 mile of 8- and 6-inch pipe and 2.5 miles of earth ditch.	Former owners: Bloss, McClary, McDonald Brothers, Alta Bert Dredging Company, Esterbrook Mining Company. Supplies Community of Trinity Center. In addition to the diversion amount reported an estimated 30 acre-feet was diverted from Rancheria Creek during 16 days when headworks was under repair.
36N/74-211L ^a (Sheet 10)	Robert Greensien	Trinity River	Irrig.	18 acres by flooding*	60	Riparian	--	--	About 1890	Gravity; 1.1 miles of earth ditch.	Former owners: Prethy, Scott. Irrigated an additional 27 acres until 1956.
37N/64-30K1 (Sheet 7)	John C. Whipple	East Fork Trinity River	Irrig. Stock	27 acres by flooding 12 head	322	Riparian	--	Deed	About 1870	Gravity; rock dam with 0.3 mile of earth ditch.	Former owners: Girard, Milton Shoemaker, Ned Shoemaker, Leese, Baird, Morton, Hepler, Nan Bassham, Bassham Estate, Wagner, William Keye.

* See remarks

-- Information not available
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TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957		Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks	
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount				Reference
TRINITY RESERVOIR SUBUNIT (Continued)											
M D B & M											
37N/84-30Q1 (Sheet 7)	John C. Whipple	Watson Creek*	Power	1 kilowatt	70	Approp.	0.22 cfs	A-1389 ^b	1952	Gravity; rock and gravel dam 3 feet high, 6 feet long, with 280 feet of 4-inch pipe and 500 feet of earth ditch.	Watson Creek is also known as China Creek.
37N/74-7E1 (Sheet 7)	C. B. and H. B. Seymour	Coffee Creek	Irrig.	6 acres by Flooding*	165	Riparian	--	--	About 1900	Gravity; rock dam with 120 feet of 12-inch pipe and 1.1 miles of earth ditch.	Former owners: Yancy, Derricks. Previously irrigated an additional 12 acres by flooding.
37N/74-701* (Sheet 7)	Myrtle W. Bonner Laura E. Hoxie Marjorie E. Pool	Coffee Creek	Irrig.	14 acres by flooding	400	Riparian	--	Deed	About 1860	Gravity; rock dam with 0.5 mile of earth ditch.	Former owners: Gentle Annie Mining Company, I. Graves. Diversion moved downstream 500 feet from reported location during July 1957.
37N/74-8E1 ^a (Sheet 7)	C. E. Carr	Coffee Creek	Irrig.* Stock*	(*) (*)	None	Riparian	--	--	About 1860	Gravity; rock dam with 0.8 mile of earth ditch.	Former owners: James E. Carr, Oco, L. Carr, Mary A. Carr. Irrigated 49 acres by flooding and supplied 40 head of livestock until 1956.
37N/74-19W1 (Sheet 7)	Ralph Goreuch George Schmetzer	Buckeye Creek	Mining	No. 1 hydraulic giant	940	Approp.	12.5 cfs	A-9188 ^b	About 1883	Gravity; 1.7 miles of earth ditch with wood flume and 14-inch pipeline to mine.	Former owners: E. Enright, Macilwaine.
37N/74-29E1 ^a (Sheet 10)	E. K. McDonald	Buckeye Creek	Irrig.	(*)	356*	Riparian	--	--	About 1850	Gravity; earth dam with 0.3 mile of earth ditch.	Former owner: J. Symes. Amount diverted used to supplement 37N/74-29F1.
37N/74-29F1 (Sheet 10)	E. K. McDonald	Buckeye Creek	Irrig. Stock.	44 acres by flooding* 60 head	371	Riparian	--	Deed	About 1850	Gravity; earth dam with wood flume and 200 feet of earth ditch.	Former owner: J. Symes. Area irrigated received supplemental supply from 37N/74-29E1.
37N/84-301 (Sheet 7)	John and Margaret Neubauer	Wagner Creek	Domestic Power	60 persons 6 kilowatts	423	(?)	--	--	About 1882	Gravity; rock and gravel dam 2 feet high, 15 feet long, with 0.3 mile of earth ditch and 8- and 6-inch pipeline.	Former owners: Ben Pinkham, Hall, Wagner, Raymond Tapie.
37N/84-3F1 (Sheet 7)	Pearl E. McCoy	Coffee Creek	Irrig.	5 acres by flooding	47	Riparian	--	--	About 1847	Gravity; rock dam with 50 feet of wood flume, 300 feet of 12-inch pipe, and 0.3 mile of earth ditch.	Former owners: Bighouse, Wagner.
37N/84-4C1 (Sheet 7)	John and Margaret Neubauer	Boulder Creek	Irrig. Domestic Stock.	10 acres by flooding 15-25 persons 60 head	128*	Approp.	--	Deed	About 1882	Gravity; rock dam with 0.5 mile of earth ditch.	Former owners: Ben Pinkham, Hall, Kennedy, Allen, Raymond Tani, McDonald. Portion of amount diverted used to supplement 37N/84-4H1 by spilling into Pinkham Creek.
37N/84-4H1 (Sheet 7)	J. W. and Viva McDonald	Pinkham Creek	Irrig.	7 acres by flooding*	40	Riparian	--	Deed	Prior 1900	Gravity; rock and earth dam 2 feet high, 4 feet long, with 400 feet of earth ditch.	Former owner: Pinkham. Area irrigated received supplemental supply from 37N/84-4C1 under owner's entitlement of 10 miner's inches.

* See remarks
-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
TRINITY RESERVOIR SUBUNIT (Continued)											
M. D. B. & M.											
37N/94-11B1 (Sheet 7)	Kent M. and Jean S. Weaver	Coffee Creek	Irrig.	7 acres by flooding	Not meas.	Approp.	0.4 cfs	A-11737 ^b	1950	Gravity; concrete head gate with 0.2 mile of earth ditch.	
37N/94-11C1 (Sheet 7)	Miriam M. Snow	Little Boulder Creek	Irrig.*	(*)	None	Approp.	0.05 cfs	A-8983 ^b	1937	Gravity; 0.2 mile of earth ditch.	Irrigated 5 acres by flooding and supplied a domestic use until 1956.
37N/94-21L1 (Sheet 7)	Numa P. Dunne Clair A. Hill	Buckeye Creek	Mining	Hydraulic giant	180	Approp.	15 cfs	A-5810 ^b	About 1890	Pump; with short 8-inch pipeline.	Former owner: O. H. Shoemaker.
38N/94-11B1 (Sheet 1)	George L. Costa	Crow Creek	Mining	Cinnabar mine	Not meas.	Approp.	0.5 cfs	A-10366 ^b	About 1880	Gravity; rock dam with 200 feet of 12-inch pipe and 0.2 mile of earth ditch.	Former owner: Altoona Mining Company
38N/94-16H1 (Sheet 1)	B. C. Austin L. A. Smith	Doe Gulch	Mining Domestic	Cinnabar mine 40 persons	Not meas.	Approp.	9,000 gpd	A-10395 ^b	1942	Gravity; rock and timber dam with 1.2 miles of 1.5-inch pipe.	Former owners: C. W. Erickson, Altoona Mining Company, Altoona Quicksilver Company, Marsman Company.
38N/74-3F1 (Sheet 1)	Frank Trumble	Springs tributary to Trinity River	Irrig.	13 acres by flooding*	30*	Riparian	--	Deed	About 1860	Gravity; 0.4 mile of earth ditch.	Former owner: Dodge. Diversion amount reported includes all water diverted by 38N/74-10D1. Combined supply used for irrigation of area indicated.
38N/74-10D1 (Sheet 1)	Frank Trumble	Tributary to Trinity River	Irrig.	(*)	(*)	(f)	--	--	About 1860	Gravity; earth dam with 0.6 mile of earth ditch to junction with 38N/74-3F1.	Former owner: Dodge. Amount diverted and extent of use reported under 38N/74-3F1.
38N/74-16Q1 (Sheet 1)	Jim Lee	Trinity River	Irrig.	18 acres by flooding	149	Riparian	--	Deed	About 1860	Gravity; rock and sheet-iron dam 2 feet high, 30 feet long, with 1.4 miles of earth ditch.	Former owners: Davis, Stoddard, Oliver, Huff, Kipley.
38N/74-20F1 (Sheet 1)	Jim Lee Wayne Leitzell	Ripple Creek	Irrig. Stock.	14 acres by flooding* 30 head	756	Riparian	--	--	About 1860	Gravity; rock and gravel dam with 0.6 mile of earth ditch.	Former owners: Davis, Stoddard, Oliver, Huff, Kipley. Area irrigated received supplemental supply from 38N/74-20F2.
38N/74-20F2 (Sheet 1)	Jim Lee Wayne Leitzell	Ripple Creek	Irrig.	(*)	78*	Riparian	--	--	About 1860	Gravity; rock and gravel dam with 0.2 mile of earth ditch.	Former owners: Davis, Stoddard, Oliver, Huff, Kipley. Amount diverted used to supplement 38N/74-20F1.
38N/94-32C1 (Sheet 1)	Arthur Kercher	Coffee Creek	Power	30 kilowatts	9,180	Riparian	--	Deed	1913	Gravity; rock dam with 300 feet of wood flume and 0.2 miles of 20-inch pipe.	
38N/94-32K1 (Sheet 1)	Rolf and Katherine Kosel	Coffee Creek	Power	2.5 kilowatts	5,117	Riparian	--	--	About 1950	Gravity; 200 feet of wood flume and 0.2 mile of earth ditch.	

* See remarks
 -- Information not available
 For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957		Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks	
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount				Reference
TRINITY RESERVOIR SUBUNIT (Continued)											
M D B & M											
38N/84-321L (Sheet 1)	Rolf and Katherine Kozel F. Rother	Coffee Creek	Irrig. Stock Domestic Power	17 acres by flooding 22 head (c) (*)	1,730	Approp.*	0.1 cfs	A-11139 ^b	1876	Gravity; rock dam with wooden head gate and 0.6 mile of earth ditch.	Former owners: Patton, Dunkin. Appropriative water right in name of Rolf and Katherine Kozel. Power use exercised by Rother from excess water not used by Kozel.
38N/84-33K1 (Sheet 1)	A. D. Rankin	Crystal Creek	Irrig. Domestic Power	9 acres by flooding (c) and sprinkler* 3 kilowatts	356	(f)	--	--	1925	Gravity; 20-inch pipeline, wood flume, and 0.2 mile of earth ditch.	Former owners: Fox, Hildref. Irrigated an additional 6 acres until 1956.
38N/94-35N1 (Sheet 1)	Henzinger Brothers	Battle Creek	Indust. Power	Lumber mill 5 kilowatts (c)	346	Approp.	3.0 cfs	A-11122 ^b	About 1890	Gravity; 0.7 mile of earth ditch with 0.2 mile of 22- and 12-inch pipe.	
39N/74-14N1 (Sheet 2)	Frank Trumble	Tangle Blue Creek	Irrig. Recre. Domestic	12 acres by flooding Fishing* (c)	3,179	Riparian	--	Deed	About 1860	Gravity; rock dam 2 feet high, 20 feet long, with 0.5 mile of earth ditch.	Former owner: Dodge. Recreational use consists of fishing in 5 small reservoirs.
UPPER SOUTH FORK SUBUNIT											
2N/7E-5K1 (Sheet 23)	Thomas F. Van Alstyne	Butter Creek	Irrig.	17 acres by flooding	Not meas.	Approp.	0.21 cfs	A-5909 ^b	1928	Gravity; timber dam with 1.4 miles of earth ditch.	Former owners: Viles, Smith, Auerbach.
2N/7E-7H1 (Sheet 23)	Phillip and Wylma Dulewitz	Butter Creek	Irrig.* (*)		None	Approp.	0.12 cfs	A-522 ^b	1916	Gravity; concrete and timber dam 4 feet high, 33 feet long, with 1 mile of earth ditch.	Irrigated 11 acres by flooding until 1956.
1S/7E-5C1 (Sheet 28)	Joseph Helfenstein	Joe Frazier Creek	Mining Irrig. Power Domestic	Placer mine 6 acres by flooding 1.5 kilowatts (c)	1,350	Approp.	1.0 cfs	A-10319 ^b	Prior 1900	Gravity; rock and gravel dam 2 feet high, 10 feet long, with 0.2 mile of earth ditch.	Former owners: Norgaar, Ains.
1S/3E-29N1 (Sheet 26)	Lena Randolph	Farley Creek	Irrig.* (*) Domestic Power	(*) --	120	Approp. Approp. Approp.	0.19 cfs 0.15 cfs 0.42 cfs	A-11407 ^b A-378 ^b A-11286 ^b	1916	Gravity; timber dam 2 feet high, 10 feet long, with 0.3 mile of earth ditch.	Irrigated 10 acres by flooding until 1956.
M D B & M											
28N/124-6J1 (Sheet 30)	John Ostrat	Frisby Creek	Domestic Power	30 persons 12.5 kilowatts	600	Approp.	0.8 cfs	A-10326 ^b	1941	Gravity; short 12-inch pipeline with 0.6 mile of earth ditch.	
29N/124-32P1 (Sheet 29)	Linda M. Ostrat	Silver Creek	Irrig.* (*) Domestic*	(*)	None	Approp.	0.7 cfs	A-5890 ^b	Prior 1900	Gravity; concrete dam 10 feet high, 15 feet long, with 0.5 mile of earth ditch.	Former owner: George Pearl. Irrigated 42 acres by flooding and supplied a small domestic use until 1957.

* See remarks
Information not available

TABLE 5 (Continued)

DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acres-feet	Type	Amount	Reference			
WEAVER CREEK SUBUNIT											
M D B & M											
32N/10A-4A1 (Sheet 21)	Earle F. Ford	Weaver Creek	Irrig.* (*)		None	Riparian	--	--	About 1850	Pump; 15-hp motor with short pipeline and earth ditch.	Former owners: Mel Jordan, Mason, Thayer. Irrigated 6 acres by flooding until 1956.
33N/9A-7G1 (Sheet 19)	Trin-Co Forest Products	East Weaver Creek	Indust.	Lumber mill	680	(f)	--	--	Prior 1957	Gravity; 0.2 mile of earth ditch.	
34N/9A-29M (Sheet 16)	William L. Alley	East Branch of East Weaver Creek	Irrig. Domestic	(*) 31 persons	25*	Approp.	15 MI	--	About 1900	Gravity; rock and sheet metal dam with 0.2 mile of earth ditch.	Former owner: LaGrange Placer Mines, Ltd. Portion of amount diverted used to supplement 34N/9A-29M2.
34N/9A-29M2 (Sheet 16)	William L. Alley	East Branch of East Weaver Creek	Irrig.	1 1/4 acres by flooding*	658	Approp.	--	--	About 1907	Gravity; rock dam with 0.1 mile of earth ditch.	Former owners: Hansen, Zonovitch, A. C. Biggerstaff, Charles Davis, Fred Chapman. Area irrigated received supplemental supply from 34N/9A-29M1.
34N/9A-29M1 (Sheet 16)	Kenneth J. Biggerstaff	East Weaver Creek	Irrig.	5 acres by flooding*	52	Riparian	---	--	Prior 1957	Gravity; rock dam with wood head gate and 0.3 mile of earth ditch.	Former owner: Rose Meyer. Area irrigated received supplemental supply from 34N/9A-22M2.
34N/9A-29M2 (Sheet 16)	Kenneth J. Biggerstaff	East Weaver Creek	Irrig. Domestic	(*) (c)	20*	Riparian	--	--	1931	Gravity; rock dam with 0.2 mile of earth ditch.	Former owners: A. C. Biggerstaff, Rose Meyer. Portion of amount diverted used to supplement 34N/9A-29M1.
34N/9A-30G1 (Sheet 16)	California-Pacific Utilities Company	East Weaver Creek	Munic.	410 connections*	1,186 (134)*	Approp.	--	--	About 1860	Gravity; concrete dam 10 feet high, 30 feet long, with 3.3 miles of 8-inch pipe.	Former owner: Young Water Company. This system replaced Hoves Ditch on 11/28/57 and diversion point relocated 3,000 feet upstream. Amount in parentheses is total of measurements made in 1958.
34N/9A-32D1 (Sheet 16)	Kenneth J. Biggerstaff	East Weaver Creek	Irrig.	5 acres by flooding	79	Riparian	--	--	1931	Gravity; rock and earth dam with 0.2 mile of earth ditch.	Former owners: A. C. Biggerstaff, Rose Meyer.
34N/9A-32E1 (Sheet 16)	Rule-Pipe Ditch James R. and Cleona I. McKnight	East Weaver Creek	Irrig.	3 acres by flooding	459	Approp.	0.05 cfs	A-16510 ^b	About 1900	Gravity; rock and gravel dam 2 feet high, 15 feet long, with 0.6 mile of earth ditch.	Former owner: LaGrange Placer Mines, Ltd.
34N/10A-35M1 (Sheet 15)	Moon Lee	West Weaver Creek	Munic. Irrig.	50 connections* 9 acres by flooding	451	Approp.	--	--	About 1860	Gravity; rock and gravel dam 60 feet long, with 3 miles of earth ditch.	Former owner: Henry Lorens. Supplies portion of Weaverville.

* See remarks

-- Information not available
For lettered footnotes, see last page of table.

TABLE 5 (Continued)
DESCRIPTORS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Location number and Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1957			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
H B & M											
6N/5E-10F1 (Sheet 11)	Mario and Peter Gambi	China Creek	Irrig. Domestic	21 acres by sprinkler 2 1/2 connections	320	Riparian	--	--	1919*	Gravity; concrete dam 1 1/2 feet high, 10 feet long; with 0.1 mile of wood flume to 50,000-gallon storage tank.	Former owner: Kelsey. Storage facilities built in 1947.
6N/5E-9F1 (Sheet 11)	Donald W. Wooden	Schoolhouse Creek	Irrig. Domestic	15 acres by sprinkler (c)	100	Approp.	0.36 cfs	A-9251 ^b	1938	Gravity; concrete dam 3 feet high, 12 feet long, with 0.3 mile of wood flume and 400 feet of 2- and 3/4-inch pipe.	Former owner: Priestly.
6N/5E-10F1 (Sheet 11)	Salver Stud Mill; Division of Pat Veneer Company	Trinity River	Indust.	Lumber mill	131	Riparian	--	--	1950	Pump; 40-hp motor with 260 feet of 6-inch pipe.	Former owners: Bailey Lumber Company, U. S. Plywood Company.
7N/5E-28F1 (Sheet 8)	Rochlin Veneer and Plywood Company	Trinity River	Indust.	Lumber mill	Not meas.	Approp.	2.25 cfs 13.5 ac storage	A-16087 ^b	1954	Pumps; 60-hp and 10-hp motors with 250 feet of 8-inch and 400 feet of 2-inch pipe, respectively.	
7N/5E-30F1 (Sheet 8)	Jameson Ditch Brizard Company	Willow Creek	Irrig.	78 acres by flooding	710	Approp.	--	Bk. 1 Pg. 109-111 ^e	About 1870	Gravity; gravel dam with 3.7 miles of earth ditch.	Former owners: S. and T. Silkwood, M. Foley, G. Waydick and Company.
7N/5E-35D1 (Sheet 8)	Silas and Betty I. Young Daniel F. Young	Tributary to Bremmer Creek	Domestic	16 connections*	Not meas.	Approp.	--	--	1911	Gravity; wood dam 1 1/2 feet high, 10 feet long, with 40 feet of 4-inch pipe to connection with 7N/5E-35D2 and 1.1 miles of 3-inch pipe to 10,500-gallon storage tank.	Former owners: Whitlock Young, Frank Young. Received supplemental supply from 7N/5E-35D2.
7N/5E-35D2 (Sheet 8)	Silas and Betty I. Young Daniel F. Young	Bremmer Creek	Domestic (*)		Not meas.	Approp.	--	--	1911	Gravity; 260 feet of 2-inch pipe to connection with 7N/5E-35D1.	Former owners: Whitlock Young, Frank Young. Amount diverted used to supplement 7N/5E-35D1.

* See remarks.

a All or portion of lands irrigated by this diversion are within the high-water line of Trinity Reservoir now under construction.

b Application to appropriate water as filed with the State Water Rights Board.

c Domestic use of less than 5 connections.

d Trinity County Records.

e Humboldt County Records.

f Insufficient information to determine type of water right.

-- Information not available.

described in Table 5. If the purpose listed is not the usual use for that diversion, notation is made in the remarks column. The extent of domestic use is specified only when five or more connections are served. Stockwatering of less than 10 head of livestock is considered to be a domestic use. The extent of irrigation use is based on the land use survey described in Chapter III.

The type, amount, and source reference of information concerning the water rights pertaining to the respective diversions are shown in Table 5 under "Apparent Water Right." This information was obtained through interviews with owners, files of the State Water Rights Board, and other official records. This information is believed to be accurate, but since some of it is not based on sworn claims or testimony, it should in no way be construed to represent a conclusive determination of water rights.

Diversions apparently made under rights based on the appropriative doctrine (see Page C-6, Appendix C) are listed as "appropriative." Those diversions for which the conditions for riparian use, also described in Appendix C, apparently prevail, but for which no appropriation was known to exist, are listed as "riparian." Diversions listed as appropriative may also be riparian, although no attempt was made in such cases to determine the riparian status.

Amounts and references are indicated, if known, for appropriative and adjudicated rights. If references to appropriative rights initiated prior to December 19, 1914 are known, they are shown as the book and page numbers of the official county records in which the filings are recorded. Such filings were made in accordance with Civil Code Sections 1411 through 1422, as enacted in 1872,

which preserved the priority of a diligent appropriator from the time of filing and enabled him to prevail over a concurrent non-statutory appropriator. Most such rights are defined in terms of miner's inches and are so reported. Some filings within the area defined the miner's inch as "measured under a 4-inch pressure." Other filings defined the miner's inch as "measured under a 6-inch head." Still others did not indicate which miner's inch was intended. Because of these differences, such rights were not reduced to cubic feet per second.

The reference given for an appropriation initiated after 1914, the effective date of the Water Commission Act, is the number of the application on file with the State Water Rights Board.

Records of Surface Water Diversions

Continuous or periodic measurements of surface water diversions were made by the Department of Water Resources during 1957, whenever it was feasible to measure the flows. Most of the diversions for nonagricultural uses and some of those used for agriculture, were operated throughout the year. Substantially all diversion measurements were started in April or May of 1957, prior to the commencement of intensive irrigation, and were continued through the irrigation season. Measurements of the year-round diversions were continued into 1958 in order to obtain a complete year of record. A few diversions were located at a late stage in the survey and no measurements or estimates of these were attempted.

Results of the measurement program are reported in Table 6, and summarized below. When feasible, measurements of each diversion were made at a location above the area of first use and as close to the diversion intake as possible, but below any regulatory spill. Exceptions are noted in the table.

<u>Primary use</u>	<u>Number of diversions</u>
Irrigation	139
Mining	16
Industrial (lumber mills)	12
Domestic	4
Municipal	3
Power	8
Recreation (fish pond)	<u>1</u>
Total Diversions	183

The total amount of water diverted at the 183 diversions for which measurements are reported was about 136,000 acre-feet, of which 37,200 were used primarily for power production, 79,300 for irrigation and stockwatering, 2,000 for urban purposes, 1,600 for rural domestic supply, 7,300 for operation of placer mines, 7,200 for the production of lumber and plywood, and 1,400 for a fish pond.

Determinations of diverted quantities were made primarily by measurement of open channel flow and testing of pumps. Periodic current meter measurements of open channel flow were made during the diversion season to obtain channel ratings. The water surface stage was recorded either by weekly observations of a staff gage or with a continuous water stage recorder, from which quantities of

Illustration 9

Weaverville



Illustration 10

Relocated

Trinity Center

TABLE 6

MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Total
BURNT RANCH SUBUNIT																		
H B & M 5N/6E-22C1	Eric Dose	Irrigation 6/15/57 - 9/26/57	At area of use	Sprinkler test and operation record	0	0	0	0	0	2	4	4	4	0	0	0	14	Reported amount includes diversion from the three points indicated.
5N/6E-23N1	Paul F. Kaut	Irrigation, domestic, and stockwatering 6/8/57 - 10/21/57	300 feet below intake	Estimated	0	0	0	0	0	--	--	--	--	0	0	0	30	
5N/6E-35F1	Paul F. Kaut	Irrigation, domestic, and stockwatering 6/8/57 - 10/21/57	0.4 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	30 ^e	40 ^e	30 ^e	26	22	0	0	148	
5N/7E-20N1	Mary M. Carpenter	Irrigation 4/15/57 - 9/26/57 and domestic	--	Estimated	--	--	--	--	--	--	--	--	--	--	--	--	530	
6N/5E-14O1	Everett Fountain	Irrigation	At pump	Pump test and power records	0	0	0	0	0	0	9	10	7	0	0	0	26	
6N/6E-16Q1	Frank Wallen	Irrigation 5/1/57 - 9/26/57 and domestic	0.4 mile below intake	Staff gage and depth-flow relationship	40 ^e	30 ^e	40 ^e	30 ^e	50 ^e	30 ^e	10 ^e	10	14	40 ^e	30 ^e	40 ^e	364	
6N/6E-21L1	Mrs. Brizard Holcome	Irrigation and domestic	0.1 mile below intake	Staff gage and depth-flow relationship	40 ^e	40 ^e	40 ^e	40 ^e	40 ^e	40 ^e	50 ^e	45	38	47	40 ^e	40 ^e	500	
6N/6E-21N1	Anderson Lumber Company, Inc.	Industrial, irrigation, and domestic	Near intake	Estimated	--	--	--	--	--	--	NH	--	--	--	--	--	250	
6N/6E-33C1	Jim Irving	Irrigation	--	Estimated	--	--	--	--	--	--	--	--	--	--	--	--	20	
H D B & M 33N/12W-5N1	Clyde C. Kennedy William F. Manlove	Irrigation 7/1/57 - 9/26/57 and domestic	0.4 mile below intake	Staff gage and depth-flow relationship	40 ^e	40 ^e	40 ^e	40 ^e	50 ^e	50	31	35	36	37	40 ^e	40 ^e	479	
33N/12W-6A1	Ernest Duncan	Irrigation 6/23/57 - 9/23/57	At pump	Pump test and operation record	0	0	0	0	0	1	0	2	2	0	0	0	5	
33N/12W-6F1 33N/12W-6L1	Kurt Bennet	Mining 1/1/57 - 4/30/57 and 12/1/57-12/31/57	At nozzle	Nozzle rating and estimated operation record	--	--	--	--	0	0	0	0	0	0	0	0	1,160*	
HAYFORK CREEK SUBUNIT																		
3N/7E-14J1	Grover A. and Emma E. Gates	Irrigation*	300 feet below intake	Estimated	0	0	0	0	0	0	--	--	--	0	0	0	30	No water reached area of use due to transportation losses.
3N/7E-20C1	William Macomber, Sr.	Irrigation and domestic 7/1/57 - 9/26/57	Near intake	Estimated	0	0	0	0	0	0	--	--	--	0	0	0	10	
3N/7E-27C1	Grover A. and Emma E. Gates	Irrigation and domestic 4/5/57 - 9/26/57	At area of use	Sprinkler test and operation record	0	0	0	14	15	173	76	29	12	0	0	0	319	
4N/7E-24R1	Glen Mitchell	Irrigation 6/26/57 - 9/26/57	150 feet below intake	Estimated	0	0	0	0	0	--	--	--	--	0	0	0	300*	Reported amount includes an estimated 150 af spilled below point of measurement.

* See remarks

e Monthly value estimated

--- e --- Diversion estimated for period indicated

-- NR -- No record for period indicated

TABLE 6 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
HAYFORK CREEK SUBUNIT (Continued)																	
M D S & M 31N/12W-4M1	Eugene T. and Bertha C. Phares	Irrigation 6/22/57 - 9/2/57	At area of use	Pump test and power records	0	0	0	0	0	0	4	10	6	1	0	0	21
HAYFORK VALLEY SUBUNIT																	
29N/11W-1G1	Clearwater Ditch	Irrigation 4/24/57 - 9/26/57	0.8 mile below intake	Staff gage and depth-flow relationship	0	0	0	60 ^e	280 ^e	280 ^e	253	231	150 ^e	0	0	0	1,254
29N/11W-1P1	George E. Riewert	Irrigation 5/17/57 - 9/26/57 and domestic	Near intake	Staff gage and depth-flow relationship	0	0	0	0	50 ^e	100 ^e	103	82	70 ^e	0	0	0	405
29N/11W-1J1	George E. Riewert	Irrigation 6/7/57 - 9/26/57 and stockwatering	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	50 ^e	57	55	40 ^e	0	0	0	202
29N/11W-1H1	Ralph L. Smith Lumber Company	Industrial	0.1 mile below intake	Staff gage and depth-flow relationship	0	40 ^e	50 ^e	50 ^e	50 ^e	50 ^e	33	32	17	30 ^e	20 ^e	20 ^e	392
30N/11W-1D1	Woodbury Ditch	Irrigation 4/1/57 - 9/26/57, stockwater- ing, and domestic	200 feet below intake	Staff gage and depth-flow relationship	60 ^e	70 ^e	70 ^e	200 ^e	200 ^e	200 ^e	197	184	220 ^e	70 ^e	70 ^e	70 ^e	1,611
30N/11W-1P1	Burton Byard	Irrigation 6/5/57 - 6/29/57 and 9/1/57 - 9/7/57	200 feet below intake	Estimated staff gage and depth- flow relationship	0	0	0	0	0	**	0	0	**	0	0	0	30
30N/11W-1P1	Burton Byard	Irrigation 6/17/57 - 8/24/57	At area of use	Pump test and operation record	0	0	0	0	0	4	9	5	0	0	0	0	18
30N/11W-2E1	Burton Byard	Irrigation and stockwatering 6/5/57 - 9/26/57	400 feet below intake	Staff gage and depth-flow relationship	0	0	0	0	0	129	92	74	50	0	0	0	345
30N/12W-1Z1	George J. and Ruth S. Kuryaz	Irrigation 4/1/57 - 9/26/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	140 ^e	172	184	125	74	53	0	0	0	748
30N/12W-13E1	William C. Dunkin	Irrigation 6/5/57 - 9/26/57	0.2 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	20 ^e	20 ^e	22	14	0	0	0	76
31N/11W-1Q1	R. Devore	Irrigation 4/14/57 - 9/26/57	50 feet below intake	Staff gage and depth-flow relationship	30 ^e	30 ^e	30 ^e	60 ^e	80 ^e	50	15	4	10	30 ^e	30 ^e	30 ^e	399
31N/11W-4G1	William Dehnhoff	Irrigation and domestic 6/10/57 - 8/31/57	100 feet below intake	Staff gage and depth-flow relationship	0	0	0	0	10 ^e	61	54	27	25	10 ^e	10 ^e	10 ^e	207
31N/11W-7A1	Clarence N. Crawford	Irrigation and stockwatering 4/4/57 - 9/26/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	100 ^e	110 ^e	350 ^e	271	162	131	15	0	0	1,139

* See remarks
e Monthly value estimated
--a-- Diversion estimated for period indicated

TABLE 6 (Continued)

MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
HAYFORK VALLEY SUBUNIT (Continued)																		
K. O. B. & M. 31W/11W-7H1	Trinity County Water Works District No. 1	Municipal	At pump	Pump test and power records	16	18	16	16	17	28	37	34	29	18	20	25	274	
31W/11W-9B1	Doris Detillion Charles Grotzman	Irrigation and stockwatering 6/10/57 - 10/10/57	0.2 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	155	148	76	91	38	0	0	508	
31W/12W-3N1	R. Beamer	Irrigation and stockwatering	At reservoir	Estimated from change in storage	0	0	0	0	0	---	---	0	0	0	0	0	14	
31W/12W-9H1	Waldo I. Jones	Irrigation 5/23/57 - 10/20/57	At pump	Pump test and power records	0	0	0	0	6	26	51	62	11	0	0	0	156	
31W/12W-11L1	Morgear Sawmill	Industrial	At pump	Pump test and operation record	0	0	0	0	0	19	53	42	39	33	30	16	232	
31W/12W-11M1	Frieda Albies	Irrigation	At pump	Pump test and power records	0	0	0	0	0	9	11	7	11	0	0	0	38	
31W/12W-11M2	W. J. Hawline and Sone	Industrial	At pump	Estimated	0	0	0	---	---	---	---	---	---	0	0	0	10	
31W/12W-11R1	Trinity Alps Lumber Company	Industrial	At area of use	Staff gage and depth-flow relationship	60°	50°	60°	60°	146	182	207	181	100°	90°	80°	100°	1,316	
31W/12W-12Q1	Trinity Alps Lumber Company	Industrial	0.3 mile below intake	Staff gage and depth-flow relationship	130°	120°	130°	120°	82	46	62	79	152	213	97	135	1,386	
31W/12W-21E1	Floyd Halbert Luda Landaker	Irrigation 6/1/57 - 8/3/57	0.3 mile below intake	Estimated	0	0	0	0	0	---	---	---	0	0	0	0	40	
31W/12W-21F1	Floyd Halbert Luda Landaker	Irrigation 5/1/57 - 9/26/57	0.2 mile below intake	Staff gage and depth-flow relationship	10°	10°	10°	10°	14	77	56	37	36	13	10°	10°	293	
31W/12W-23J1	J. D. Bourke Mrs. William Egan	Irrigation	At area of use	Pump test and power records	0	0	0	0	0	15	21	13	0	0	0	0	49	
31W/12W-28Q1	Hugh Hall	Irrigation 5/30/57 - 9/26/57	0.5 mile below intake	Staff gage and depth-flow relationship	40°	30°	40°	40°	47	68	60	39	25	25	40°	40°	494	
31W/12W-36Q1	James Duncan	Irrigation 7/16/57 - 8/8/57	At pump	Estimated	0	0	0	0	0	0	---	---	0	0	0	0	5	
31W/12W-36P1	Ralph and Gertrude Patton	Irrigation 5/15/57 - 7/15/57	---	Estimated	0	0	0	0	---	---	---	0	0	0	0	0	30	
32W/10W-31P1	James H. and Mildred Sasy	Irrigation 6/15/57 - 9/26/57	50 feet below intake	Staff gage and depth-flow relationship	0	0	0	0	0	10°	10°	6	2°	0	0	0	28	
32W/10W-31R1	James H. and Mildred Sasy	Irrigation	At pump	Estimated	0	0	0	0	0	3°	0	0	0	0	0	0	3	
32W/11W-19F1	James R. Wood	Mining 6/1/57 - 6/30/57, power, and domestic	At power plant	Estimated	---	---	---	---	---	---	---	---	---	---	---	---	230	

* See remarks

° Monthly value estimated

---°--- Diversion estimated for period indicated

---NR--- No record for period indicated

TABLE 6 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total	
HAYFORK VALLEY SUBUNIT (Continued)																			
M. D. B. & M. 32N/11W-28K1	Clarence H. Crawford	Irrigation 6/15/57 - 9/26/57	200 feet below intake	Staff gage and depth-flow relationship	0	0	0	0	0	18	18	19	48	0	0	0	103	Amounts in parentheses are measurements made in 1958.	
32N/11W-30Q1	Clarence H. Crawford	Irrigation 3/24/57 - 9/26/57, stockwatering, and domestic	150 feet below intake	Water-stage recorder and depth-flow relationship	1* (1)	0*	NR (17)	230* (162)	464	518	405	290	86	51	184	2,228 (186)*			
32N/11W-33K1	Clarence H. Crawford	Irrigation 8/1/57 - 9/26/57	--	Estimated	0	0	0	0	0	0	--	--	0	0	0	100			
32N/11W-35A1	Francis Ditch	Irrigation and stockwatering 5/20/57 - 9/27/57	0.3 mile below intake	Staff gage and depth-flow relationship	--	--	NR	--	42	56	32	44	--	NR	--	232			
HELENA SUBUNIT																			
33N/11W-31L	Reo D. Stott	Recreational 1/1/57 - 12/1/57	Near intake	Estimated	--	--	--	--	--	--	--	--	--	--	--	--	1,360*	Reported amount is diverted into 20 af fish pond and returned to stream.	
33N/11W-25A1	Chapman Brothers	Irrigation 7/1/57 - 9/26/57, power, domestic, and stockwatering	5 feet below intake	Staff gage and depth-flow relationship	90°	80°	90°	80°	90°	80°	151	104	85	110°	80°	90°	1,130		
34N/11W-1H1	Junction City Powerhouse	Power	--	--	600	1,300	2,400	2,400	2,500	2,400	2,200	700	0	1,600	2,100	2,400	20,600*		Record obtained from the Federal Power Commission.
34N/11W-16H1	David E. Montgomery	Mining	1 mile below intake	Ditch rating and operation record	101	101	0	0	0	0	0	0	0	0	0	54	256		
34N/11W-26N1	Edward J. and Ruth E. Russell	Irrigation and domestic	At area of use	Operation record	0	0	0	0	0	40	10	2	1	0	0	0	53		
34N/11W-29B1	Bryan Hintere	Irrigation 6/1/57 - 9/26/57 and domestic	At area of use	Estimated	--	--	--	--	--	--	--	--	--	--	--	--	40		
34N/11W-29B2	Bryan Hinters	Irrigation 6/1/57 - 9/26/57 and domestic	At area of use	Estimated	--	--	--	--	--	--	--	--	--	--	--	--	70		
35N/10W-19Q1	Joseph J. Speers	Mining, power, and domestic	At area of use	Estimated	--	--	--	--	--	--	--	--	--	--	--	--	130		
35N/10W-20D1	Grover D. Pullerton	Irrigation 6/10/57 - 9/26/57 and power	0.3 mile below intake	Staff gage and depth-flow relationship	120°	110°	120°	120°	120°	120°	121	139	126	120	110	105	1,431	Amount diverted prior to 2/1/57 and after 5/1/57 used only to keep flume wet.	
35N/10W-29N1	Ray and Roy DeHaven	Mining 2/1/57 - 5/1/57	Near intake	Estimated	--	--	--	--	--	--	--	--	--	--	--	--	1,050*		

* See remarks
* Monthly value estimated
--NR-- Overrun estimated for period indicated
--NR-- No record for period indicated

TABLE 6 (Continued)

MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
H B & M 7N/5E-7D1	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Domestic	1 mile below intake	Staff gage and depth-flow relationship	HOOPA SUBUNIT												Amounts in parentheses are measurements made in 1958.
					-----NR----- * (59) * (55) * (66) * (62)	50°	40°	43	44	47	46	44	53	367 (212)*			
8N/4E-2R1	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Irrigation to 9/26/57, industrial, and domestic	75 feet below intake	Water-stages recorder and depth-flow relationship	-----NR----- * (205) * (217) * (253) * (222)	450°	294	427	471	410	280°	230°	310°	2,872 (897)*	Amounts in parentheses are measurements made in 1958.		
					-----NR----- * (55) * (11) * (28) * (44)	50°	41	37	59	84	47	63	85	466 (138)*			
8N/4E-10P1	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Irrigation to 9/26/57 and domestic	0.3 mile below intake	Staff gage and depth-flow relationship	-----NR----- * (55) * (11) * (28) * (44)	50°	41	37	59	84	47	63	85	466 (138)*	Amounts in parentheses are measurements made in 1958.		
8N/4E-13U1	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Irrigation to 10/23/57, industrial, and domestic	--	Estimated	-----	-----	-----	-----	-----	-----	-----	-----	-----	865			
8N/4E-26F2	United States Bureau of Indian Affairs; Hoopa Indian Reservation	Irrigation to 9/26/57 and domestic	0.2 mile below intake	Staff gage and depth-flow relationship	-----NR----- * (25) * (26) * (23) * (47)	80°	116	133	140	119	45	46	36	715 (121)*	Amounts in parentheses are measurements made in 1958.		
					HYAMPOM SUBUNIT												
3N/6E-9R1	Nellis E. Mortenson	Irrigation 4/15/57 - 9/26/57	0.2 mile below intake	Staff gage and depth-flow relationship	0 0 0 0 0 40° 70°	103	101	49	28	0	0	0	461				
3N/6E-15A1	William Garrett, Jr.	Irrigation 6/8/57 - 9/14/57	At area of use	Pump test and power records	0 0 0 0 0 0 3 3 3 2 0 0 0 0	11											
3N/6E-15H1	William Garrett, Jr.	Irrigation 6/15/57- 9/15/57	At pump	Pump test and power records	0 0 0 0 0 0 15 20 8 17 0 0 0 0	60											
3N/6E-16H1	William Garrett, Jr.	Irrigation 5/10/57 - 9/26/57 and industrial 4/1/57 - 12/31/57	400 feet below intake	Staff gage and depth-flow relationship	0 0 0 0 0 50° 50°	46	20	8	28	30°	30°	312					

* See remarks

° Monthly value estimated

---*--- Diversion estimated for period indicated

---NR--- No record for period indicated

TABLE 6 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
HYAMPOM SUBUNIT (Continued)																		
H B & M 3W/6E-21U1 3N/6E-23Q1 3N/6E-24B1 3W/6E-25B1 3W/6E-27A1	Phyllie Youngblood	Irrigation and domestic 5/10/57 - 9/26/57	0.7 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	40°	60°	49	49	30°	0	0	0	228	No water reached area of use due to transportation loss.
	Thomas B. Kelly, et al.	Irrigation 7/1/57 - 9/22/57	At pump	Pump test and power records	0	0	0	0	0	0	73	16	18	0	0	0	107	
	Thomas B. Kelly, et al.	Irrigation*	Near intake	Estimated	0	0	0	0	0	0	0	0	0	0	0	0	50*	
	Cene Greenleaf	Irrigation 6/1/57 - 6/3/57 and 9/10/57	At pump	Estimated	0	0	0	0	0	**	0	0	**	0	0	0	10	
	Leo F. Amort	Irrigation 5/1/57 - 9/26/57, stockwatering, and domestic	0.4 mile below intake	Staff gage and depth-flow relationship	20°	10°	20°	20°	120°	120°	143	165	149	20°	20°	20°	827	
LOWER SOUTH FORK SUBUNIT																		
4N/6E-16M1 4N/6E-22Q1 5N/6E-18W1 5N/6E-18P1 6N/5E-15Q1	Jim Trimble	Irrigation 4/15/57 - 8/5/57	0.2 mile below intake	Estimated	0	0	0	0	0	0	0	0	0	0	0	0	143	Source ceased to flow 8/5/57.
	William Garrett, Jr.	Irrigation 5/10/57 - 9/25/57	0.5 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	40°	45	27	18	10	0	0	0	140	
	Max A. Todd	Irrigation 6/10/57 - 9/21/57	At pump	Pump test and power records	0	0	0	0	0	3	11	9	7	0	0	0	30	
	Max A. Todd	Irrigation, domestic, and stockwatering	At area of use	Estimated	0	0	0	0	0	0	0	0	0	0	0	0	15	
	Walter M. Gleason	Industrial 6/1/57 - 10/15/57	At pump	Pump test and operation record	0	0	0	0	0	21	20	20	20	14	0	0	95	
MIDDLE TRINITY SUBUNIT																		
H D B & M 32N/5W-30M1 32N/5W-5P1 32N/5W-8Q1	H. R. and W. L. Halverson T. S. Kimbel Albert L. and Emily Shapley William and Lilley Williams	Power and domestic	0.1 mile below intake	Staff gage and depth-flow relationship	110°	100°	110°	110°	110°	131	185	119	58	90°	70°	70°	1,263	deported amount diverted prior to 6/4/57 and after 9/7/57 spilled. deported amount diverted prior to 4/15/57 and after 9/30/57 ended.
	Bert A. Phillips Melvin E. Dale Alvis Hale	Irrigation 5/7/57 - 9/7/57 and stockwatering Irrigation 4/15/57 - 9/30/57 and domestic	0.2 mile below intake 0.3 mile below intake	Staff gage and depth-flow relationship Staff gage and depth-flow relationship	0	0	0	0	68	79	160	145	139	46	0	0	637*	

* See remarks
° Monthly value estimated

TABLE 6 (Continued)

MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Methd of observation and calculation	Amount diverted, in acre-feet												Remarks		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total	
MIDDLE TRINITY SUBUNIT (Continued)																			
M D E & H 32N/9M-31Q1	Clifford and Fred Rose	Irrigation 4/26/57 - 9/26/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	40°	394	274	281	224	338	471	0	0	2,022*	Reported amount diverted after 9/26/57 spilled.	
32N/9M-33R1	T. R. Nelson T. Wallace	Irrigation 4/9/57 - 9/28/57, mining, and domestic	0.3 mile below intake	Water-stage recorder and depth-flow relationship	(238) [*]	(57)	NR	(18) [*]	(213)	(290)	275	397	291	193	172	211	231	1,859 (727) [*]	Amounts in parentheses are measurements made in 1958.
32N/10M-10R1	Bert A. Phillips	Irrigation 5/28/57 - 9/17/57	At pump	Pump test and power records	0	0	0	0	1	11	17	17	8	0	0	0	0	54	
32N/10M-12B1	United States Plywood Corp.	Industrial 4/29/57 - 9/18/57	At pump	Pump test and operation record	0	0	0	13	78	45	44	52	18	0	0	0	0	250	
32N/10M-13N1	L. V. Jordan	Irrigation 4/15/57 - 9/26/57	0.2 mile below intake	Staff gage and depth-flow relationship	0	0	0	60°	60°	52	129	106	88	130°	120°	120°	865*	Reported amounts diverted after 9/26/57 spilled.	
32N/10M-14Q1	L. V. Jordan	Irrigation 4/15/57 - 9/28/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	130°	250°	196	182	135	101	0	0	0	0	994	
33N/8M-15N1	Harold J. and Mary J. Wilson	Irrigation 6/1/57 - 9/26/57	1 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	85	46	38	33	0	0	0	0	202	
33N/8M-20N1	Harold J. and Mary J. Wilson	Irrigation 7/13/57 - 9/26/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	0	21	34	27	0	0	0	0	82	
33N/9M-12L1	William B. Wright	Irrigation 6/1/57 - 9/26/57, stockwatering, domestic, and power	30 feet below intake	Staff gage and depth-flow relationship	60°	50°	50°	50°	56	61	25	30	40	100°	50°	60°	632*	Reported amounts diverted prior to 6/1/57 and after 9/26/57 includes an undetermined amount of spill.	
33N/9M-26E1	Ben Wellock	Irrigation 6/26/57 - 9/18/57	50 feet below intake	Staff gage and depth-flow relationship	0	0	0	0	0	18	23	22	9	0	0	0	0	72	
33N/9M-35C1	Bernie L. and Leslie Leas	Irrigation 5/12/57 - 9/26/57 and domestic	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	79	147	44	41	39	70°	60°	60°	540*	Reported amounts diverted after 9/26/57 includes an undetermined amount of spill.	
33N/9M-35D1	Ralph Leeper Arthur E. Lunden	Irrigation 4/26/57 - 9/26/57	0.5 mile below intake	Staff gage and depth-flow relationship	0	0	0	17	204	128	163	190	173	70°	60°	60°	1,065*	Reported amounts diverted after 9/26/57 spilled.	
33N/10M-33F1	Floyd and Grover Lorenz	Irrigation and stockwatering 4/1/57 - 9/19/57	30 feet below intake	Staff gage and depth-flow relationship	0	0	0	50°	61	46	36	24	4	0	0	0	221	Source dry 9/19/57	
34N/9M-8H1	Nelson Ditch	Irrigation and domestic 5/26/57 - 9/26/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	170°	180°	184	110	60	22	0	0	0	0	726	
34N/9M-16B1	Junkane Ditch	Irrigation 4/1/57 - 9/26/57	0.2 mile below intake	Staff gage and depth-flow relationship	0	0	0	240°	270°	379	187	92	46	0	0	0	1,214*	Reported amount diverted includes an estimated 0.1 cfs supplemental supply from Bear Gulch.	

* See remarks

† Monthly value estimated

---*--- Diversion estimated for period indicated

---NR--- No record for period indicated

TABLE 6 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
NEW RIVER SUBUNIT																		
N B & N 6N/6E-12H1	Hermie W. Dailey	Mining 1/1/57 - 5/10/57, irrigation 5/11/57 - 9/26/57, and domestic	1 mile below intake	Staff gage and depth-flow relationship	390°	350°	390°	370°	210°	80°	80°	64	63	20°	0	0	2,017	Reported amounts include diversions from the two points indicated.
6N/6E-12L1 6N/6E-12L2	Viola A. Dailey	Irrigation 5/10/57 - 9/26/57, power, mining, and stockwatering	0.8 mile below Bell Creek intake	Staff gage and depth-flow relationship	70°	60°	70°	70°	70°	70°	60°	52	54	70°	70°	70°	786°	
7N/7E-28H1 7N/7E-27L (Hoopa Subunit)	Grover and Willard Ladd	Irrigation 6/1/57 - 9/26/57, stockwatering, mining, and power	0.3 mile below intake	Staff gage and depth-flow relationship	130°	120°	130°	130°	130°	130°	185	137	103	140	120°	130°	1,585°	
TRINITY RESERVOIR SUBUNIT																		
N D B & N 35N/7W-8R1	John Nielsen	Power	0.4 mile below intake	Staff gage and depth-flow relationship	70°	60°	70°	70°	70°	70°	71	76	66	55	70°	70°	70°	818
35N/7W-17D1	John Nielsen	Irrigation 7/1/57 - 9/26/57	Near intake	Estimated	0	0	0	0	0	0	0	-----	-----	-----	0	0	0	70
35N/8W-4K1	Covington Lumber Company	Industrial, power, and domestic	0.2 mile below intake	Staff gage and depth-flow relationship	190°	170°	190°	180°	180°	181	178	160	152	180°	180°	190°	2,131	
35N/8W-10E1	Louis J. and Nora M. Karsch	Irrigation 6/15/57 - 9/26/57, domestic, mining, and stockwatering	0.2 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	9	49	111	87	0	0	0	256	
35N/9W-13R1	Donald and Elizabeth Ranier	Power, irrigation, 7/15/57 - 9/27/57, and domestic	Near intake	Estimated	0	0	0	0	0	0	0	-----	-----	-----	0	0	0	80
35N/9W-28A1	Trinity Alps Resort	Irrigation to 8/15/57, power, and stockwatering	Near penstock intake	Staff gage and depth-flow relationship	90°	80°	90°	90°	90°	118	117	106	79	118	90°	90°	1,188	
35N/9W-36H1	Cedar Spook Ranch	Power 10/20/57 - 12/31/57 and domestic	Near intake	Estimated	0	0	0	0	0	0	0	0	0	0	-----	-----	30	
36N/6W-5C1	Bud Wagner	Irrigation 6/1/57 - 9/26/57 and domestic	Near intake	Staff gage and depth-flow relationship	120°	100°	120°	110°	120°	172	340	346	314	100°	110°	120°	2,072	
36N/7W-8K1	Adrian B. and Mary H. Bauchou	Irrigation 5/15/57 - 9/26/57	0.8 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	60°	94	77	29	0	0	0	337	

See remarks
Monthly value estimated
Overlaid estimated for period indicated

TABLE 6 (Continued)

MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
TRINITY RESERVOIR SUBUNIT (Continued)																		
M. O. B. & M. 36N/7M-80L	E. K. McDonald	Irrigation and stock-watering 5/1/57 - 9/27/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	70°	63	46	30°	10°	0	0	0	219	In addition to amount reported, an estimated 510 af were diverted into ditch from Squirrel Oulch, and an estimated 370 af were lost in transportation. All water spilled below point of measurement after 9/26/57.
					0	0	0	0	40°	61	265	6	30°	0	0	0	402	
36N/7M-9N1	Trinity Farm and Cattle Company	Irrigation 5/1/57 - 9/28/57	200 feet below intake	Staff gage and depth-flow relationship	0	0	130°	290°	620°	523	425	377	312	19	0	0	2,696*	
36N/7M-11H1	Trinity Farm and Cattle Company	Irrigation and stock-watering 3/1/57 - 9/26/57	0.6 mile below intake	Water-stage recorder and depth-flow relationship	620°	560°	620°	600°	620°	1,228	732	693	585	630°	600°	620°	8,108	
36N/7M-11D1					Estimated	0	0	0	0	-----	-----	-----	-----	0	0	0	80	
36N/7M-16B1	Edwin W. Scott	Irrigation 5/26/57 - 9/26/57	Near intake	Estimated	740°	670°	740°	730°	730°	687	802	777	606	470°	420°	430°	7,802	No water diverted due to repair work 9/26/57 to 9/30/57 and from 10/7/57 to 10/19/57. In addition to the amount reported an estimated 30 af were received from Rancheria Creek.
36N/7M-17D1	Comstock Ditch	Irrigation 4/15/57 - 9/26/57, stockwatering and domestic	0.5 mile below intake	Staff gage and depth-flow relationship	290°	260°	290°	280°	290°	254	212	239	132	150°	280°	290°	2,967*	
36N/7M-18B1	Bliss and McClary Ditch	Irrigation and domestic	0.2 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	-----	0	0	0	0	0	0	60	
36N/7M-21L1	Robert Greenelsen	Irrigation 5/15/57 - 6/7/57	Near intake	Estimated	0	0	0	0	0	-----	0	0	0	0	0	0	322	
37N/6M-20K1	John C. Whipple	Irrigation 5/1/57 - 9/26/57 and stockwatering 5/1/57 - 11/1/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	60°	60°	59	53	50	40°	0	0	70*	
37N/6M-20C1	John C. Whipple	Power 2/1/57 -12/31/57	Near intake	Estimated	0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
37N/7M-7E1	C. B. and H. B. Seymour	Irrigation 6/6/57 - 9/30/57	100 feet below intake	Staff gage and depth-flow relationship	0	0	0	0	0	28	34	53	50°	0	0	0	165	
37N/7M-7D1	Myrtle W. Benner Laura E. Hoxie Marjorie E. Pool	Irrigation 5/1/57 - 9/26/57	Near intake	Estimated	0	0	0	0	-----	-----	-----	-----	-----	0	0	0	400	
37N/7M-19H1	Ralph Goreuch George Schnetzer	Mining 1/1/57 - 4/30/57 and 12/1/57 -12/31/57	Near intake	Estimated	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	940*	
Amount diverted during months of May through November used only to keep sluice box wet.																		

* See remarks

° Monthly value estimated

---***--- Diversion estimated for period indicated

---NR--- No record for period indicated

TABLE 6 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
TRINITY RESERVOIR SUBUNIT (Continued)																		
M. D. B. & M. 37N/7N-29E1	E. K. McDonald	Irrigation 4/5/57 - 9/28/57	200 feet below intake	Staff gage and depth-flow relationship	0	0	0	50 ^e	60 ^e	66	71	64	45	0	0	0	356	
37N/7N-29F1	E. K. McDonald	Irrigation 5/24/57 - 9/28/57 and stock watering	30 feet below intake	Staff gage and depth-flow relationship	0	0	0	0	30 ^e	118	117	70	36	0	0	0	371	
37N/8N-30E1	John and Margaret Neubauer	Domestic and power 2/1/57 - 10/30/57	0.2 mile below intake	Staff gage and depth-flow relationship	0	40 ^e	50 ^e	50 ^e	50 ^e	47	57	54	35	40 ^e	0	0	423	
37N/8N-30F1	Pearl E. McCoy	Irrigation 6/1/57 - 9/26/57	0.4 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	10 ^e	18	9	10 ^e	0	0	0	47	
37N/8N-40E1	John and Margaret Neubauer	Irrigation, stockwatering, and domestic 5/1/57 - 9/30/57	300 feet below intake	Staff gage and depth-flow relationship	0	0	0	0	30 ^e	20 ^e	28	30	20 ^e	0	0	0	128	
37N/8N-40F1	J. W. and Viva McDonald	Irrigation 5/1/57 - 9/30/57	Near Intake	Estimated	0	0	0	0	-----	-----	-----	-----	-----	0	0	0	40	
37N/8N-24E1	Numa P. Dunne Clair A. Hill	Mining 7/1/57 - 7/30/57	Near Intake	Estimated	0	0	0	0	0	0	180 ^e	0	0	0	0	0	180	
38N/7N-30F1 38N/7N-100E1	Frank Trumble	Irrigation 6/1/57 - 7/29/57	100 feet below intake	Estimated	0	0	0	0	0	0	-----	-----	0	0	0	0	30 [*]	Reported amount includes diversions from the two diversion points indicated.
38N/7N-160E1	Jim Lee	Irrigation 4/25/57 - 9/28/57	0.2 mile below intake	Staff gage and depth-flow relationship	0	0	0	20 ^e	90 ^e	90 ^e	89	89	71	0	0	0	449	
38N/7N-20F1	Jim Lee Wayne Leitell	Irrigation 6/15/57 - 9/21/57 and stockwatering	200 feet below intake	Staff gage and depth-flow relationship	70 ^e	70 ^e	70 ^e	70 ^e	70 ^e	60 ^e	80	38	18	70 ^e	70 ^e	70 ^e	756 [*]	Reported amount includes an estimated 0.3 cfs transportation loss.
38N/7N-20F2	Jim Lee Wayne Leitell	Irrigation 6/15/57 - 9/26/57	0.3 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	0	20 ^e	23	24	11	0	0	0	78	
38N/8N-320E1	Arthur Kercher	Power	200 feet below powerhouse	Current meter and operation record	780	704	780	754	780	754	780	780	754	780	754	780	9,180	
38N/8N-320F1	Rolf and Katherine Kosel	Power	200 feet below intake	Staff gage and depth-flow relationship	440 ^e	390 ^e	440 ^e	420 ^e	440 ^e	420 ^e	445	392	450 ^e	450 ^e	420 ^e	440 ^e	5,147	
38N/8N-321E1	Rolf and Katherine Kosel P. Rother	Irrigation 5/1/57 - 9/30/57, stockwatering, domestic, and power	0.3 mile below intake	Staff gage and depth-flow relationship	150 ^e	130 ^e	150 ^e	140 ^e	170 ^e	180 ^e	168	127	95	130 ^e	140 ^e	150 ^e	1,730 [*]	Regulatory spill downstream from point of measurement was estimated during months of January through April and October through December and deducted from measured quantities and the difference reported herein. Total estimated spill was 130 af.

* See remarks
e Monthly value estimated
---NR--- Overrun estimated for period indicated
---NR--- No record for period indicated

TABLE 6 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
TRINITY RESERVOIR SUBUNIT (Continued)																		
M D B & H 38N/84-2341	A. D. Rankin	Irrigation, domestic, and power	30 feet below intake	Staff gage and depth-flow relationship	30°	30°	30°	30°	30°	30°	29	30	27	30°	30°	30°	356	
	Heninger Brothers	Industrial 6/24/57 - 11/6/57 and power 5/1/57 - 11/30/57	At area of use	Nozzle rating and operation record	0	0	0	0	18	47	67	43	96	30	45	0	346	
	Frank Trumble	Irrigation 6/15/57 - 7/31/57; recreational and domestic	0.4 mile below intake	Staff gage and depth-flow relationship	280°	250°	280°	270°	280°	240°	326	272	181	250°	270°	280°	3,179	
UPPER SOUTH FORK SUBUNIT																		
H B & H 15/7E-5C1	Joseph Helfenstein	Mining 2/15/57 - 5/15/57, irrigation 5/15/57 - 9/30/57	--	Estimated	----- ** -----												1,350	
	Lena Randolph	Irrigation,* and domestic and power 11/1/57 - 11/1/57	--	Estimated	0	0	0	--	----- ** -----	-----	-----	-----	-----	-----	0	0	120	*Not used for irrigation in 1957.
	John Ostrat	Domestic and power	--	Estimated	----- ** -----												600	
WEAVER CREEK SUBUNIT																		
33N/94-7C1	Trin-Co Forest Products	Industrial	Near intake	Estimated	----- ** -----												680	
	William L. Alley	Irrigation and domestic	400 feet below intake	Staff gage and depth-flow relationship	0	0	0	NR	25	4	0	NR	0	NR	0	0	29	
	William L. Alley	Irrigation 4/1/57 - 10/15/57	200 feet below intake	Staff gage and depth-flow relationship	60°	50°	60°	50°	120	77	63	47	41	30°	30°	30°	658	
34N/94-29N1	Kenneth J. Biggestaff	Irrigation 5/1/57 - 9/26/57	0.1 mile below intake	Staff gage and depth-flow relationship	0	0	0	0	13	11	13	8	7	0	0	0	52	
34N/94-29N2	Kenneth J. Biggestaff	Irrigation 5/1/57 - 9/26/57 and domestic	Near intake	Estimated	0	0	0	0	0	--	----- ** -----	-----	-----	0	0	0	20	

* See remarks
e Monthly volus estimated
--*-- Overlusion estimated for period indicated
--NR-- No record for period indicated

TABLE 6 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
WEAVER CREEK SUBUNIT (Continued)																		
R.D.B. & M. 34N/54-32D1	California-Pacific Utility Company	Municipal 1/1/57 - 11/25/57	0.5 mile below intake	Water-stage recorder and depth-flow relationship	-----	NR	-----	264	177	100	109	91	232	168	NR	1,141	*	
					(33)	(25)	*	(32)	(44)								15 (134)	
					0	0	0	0	0	40°	24	5	10°	0	0	0	79	
					40°	40°	40°	40°	50	52	36	20	21	40°	40°	40°	459	*
					40°	40°	40°	40°	40°	26	40	33	37	45	40°	30°	451	*
WILLOW CREEK SUBUNIT																		
H.B. & M. 6N/5E-47L	Mario and Peter Cambi	Irrigation 5/1/57 - 9/26/57 and domestic	Near intake	Estimated	-----	-----	-----	-----	-----	**	-----	-----	-----	-----	-----	-----	320	*
					-----	-----	-----	-----	-----	**	-----	-----	-----	-----	-----	100		
					0	0	17	24	12	14	27	26	11	0	0	0	131	
					-----	NR	-----	-----	100°	130°	96	92	57	25-	30	710	*	
6N/5E-50L	Donald M. Wooden	Irrigation 5/1/57 - 9/30/57 and domestic	Near intake	Estimated														
6N/5E-10FL	Salzer Stud Hill; Division of Pat Veneer Company	Industrial 3/18/57 - 9/13/57	At pump	Pump test and operation record														
7N/5E-30FL	Jameson Ditch	Irrigation 6/15/57 - 9/25/57	1 mile below intake	Staff gage and depth-flow relationship														

* See remarks
e Monthly value estimated
--e-- Diversion estimated for period indicated
--NR-- No record for period indicated

flow were calculated. Existing weirs were used whenever available. These observations were supplemented by interview of water users to obtain additional staff gage readings and to obtain data on possible abrupt changes in operation between readings.

The values in Table 6 are based on various methods listed in the column, "Method of observation and calculations." When the monthly data were sufficiently reliable, monthly values are shown. When the diversion for a given period is known to have been zero, it is so indicated. The data, however, were sometimes not sufficiently detailed to justify a breakdown into monthly values. These cases are indicated by --NR--. Incomplete or uncertain data are designated as estimates. Notations regarding the extent of irrigation period indicate the overall period of irrigation but not necessarily that daily or continuous irrigation was practiced through the period. Notations that a stream source was "dry" at a certain time indicate that streamflow was so low as to make diversion infeasible.

Index to Surface Water Diversions

For convenience of the reader, an alphabetical index of diversion owners and diversion names, along with the subunit location of each diversion and references to map and page numbers on which data concerning each appears, is shown on Table 7, which is at the end of this chapter.

Imports and Exports

There are no surface water supplies imported to Trinity River Hydrographic Unit from areas outside the unit. Although there

is presently no export of surface water from the unit, diversion facilities are being constructed in conjunction with Lewiston Dam, which will divert an average of approximately 990,000 acre-feet per year into the Sacramento River Basin.

Consumptive Use

In the Trinity River Hydrographic Unit, the largest quantity of water diverted from Trinity River and its tributaries is for irrigated agriculture which also has the largest consumptive use of water. Consumptive use is defined as water consumed by vegetative growth in transpiration and building of plant tissue and by water evaporated from adjacent soil, from water surface and from foliage. It also includes water similarly consumed and evaporated by urban and nonvegetative types of land use.

As previously indicated, a substantial portion but not all of the water diverted in the unit was measured or estimated during the investigation. During the year 1957, a total of 136,000 acre-feet of diversions were measured. This amount includes water used for several purposes, as shown in Table 5. Therefore, and in order to obtain an irrigation water application rate per acre, certain diversion records were selected from Table 5. This representative sample indicates that about 27,800 acre-feet of water was used exclusively for the irrigation of 2,500 acres with some stockwatering and incidental domestic uses (less than five connections) included. If it is assumed that the stockwatering and incidental domestic uses during this period were a negligible portion of the total, then the average diversion rate by these diversion systems was 11.1 acre-feet

per acre. The seasonal diversion rates of individual systems varied from about 1 to 100 acre-feet per acre, but for larger systems, those serving 50 acres or more, the rates varied from 2.0 to 13.5 acre-feet per acre.

The total seasonal consumptive use of applied water by crops on the afore-mentioned 2,500 acres of land is estimated to have been 4,800 acre-feet. This is based on the unit consumptive use of applied water values published in Department of Water Resources Bulletin No. 83 as follows:

<u>Crop</u>	<u>Unit consumptive use of applied water in acre-feet per acre</u>
Mixed, native and meadow pasture	2.0
Alfalfa	1.7
Hay and grain	0.6
Orchard	1.2
Field crops	0.9
Truck crops	1.2

The total seasonal consumptive use of applied water by all irrigated crops in the unit (3,880 acres) is estimated to have been 7,400 acre-feet in 1957. This value was derived in a manner similar to that described in the previous paragraph.

In addition to the consumptive use of applied water by agriculture, about 1,300 acre-feet were used for domestic and municipal purposes and about 400 acre-feet were used for industrial purposes in the production of lumber and plywood. The consumptive use for power and mining purposes is negligible, consisting primarily of evaporation from canal surfaces.

TABLE 7
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Albiez, Frieda	31N/12W-11E1	Hayfork Valley	24	31, 84
	31N/12W-11M1	Hayfork Valley	24	32, 55, 84, C-10
Alexander, Sam, {Jr.}	32N/10W-5D1	Helena	21	33
	32N/10W-5E1	Helena	21	33, 85
	32N/10W-6H1	Helena	21	33, 85
Alley, William L.	34N/9W-29M1	Weaver Creek	16	47, 63, 92
	34N/9W-29M2	Weaver Creek	16	47, 63, 92
Amort, Leo F.	3N/6E-27A1	Hyampom	20	37, 58, 87
Anderquist Lumber Company, Inc.	6N/6E-21N1	Burnt Ranch	11	28, 53, 82
Atkinson, Guy F., Company	33N/8W-17E1	Middle Trinity	19	22, 39, C-21
Augustine, Robert L. and M. A.	3N/6E-24R1	Hyampom	20	37, 87, C-17
Austin, B. C. Smith, L. A.	38N/6W-16H1	Trinity Reservoir	4	45, C-13
Bauchou, Adrian B. and Mary R.	36N/7W-8K1	Trinity Reservoir	10	42, 60, 90
Beamer, R.	31N/12W-3N1	Hayfork Valley	24	31, 55, 84
	31N/12W-10C1	Hayfork Valley	24	31, 84
Bennet, Kurt	4N/8E-9C1	Burnt Ranch	17	27, 53
	33N/12W-6C1	Burnt Ranch	18	28
	33N/12W-6F1	Burnt Ranch	18	28, 53
	33N/12W-6L1	Burnt Ranch	18	28, 53
Berg, Per O.	6N/6E-34K1	Burnt Ranch	11	28
Biggerstaff, Kenneth J.	34N/9W-29N1	Weaver Creek	16	47, 63, 92
	34N/9W-29N2	Weaver Creek	16	47, 63, 92
	34N/9W-32D1	Weaver Creek	16	47, 64, 92
Blair, V. Ethridge, Bryan Monroe, G. W. Stone, C. Swink, J. E.	34N/12W-31N1	Burnt Ranch	15	28
Bloss and McClary Ditch Foster, W. C. McDonald, E. K., et al.	36N/7W-18B1	Trinity Reservoir	10	43, 61, 90
Bonner, Myrtle W. Hoxie, Laura E. Pool, Marjorie E.	37N/7W-7G1	Trinity Reservoir	7	44, 61, 90
Brizard Company	See Jameson Ditch			
Byard, Burton	30N/11W-17P1	Hayfork Valley	27	30, 54, 83
	30N/11W-19A1	Hayfork Valley	27	30, 54, 83
	30N/11W-20E1	Hayfork Valley	27	30, 54, 83
California-Pacific Utilities Co.	34N/9W-30G1	Weaver Creek	16	22, 47, 64

TABLE 7 (Continued)
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendices Page No.
Canyon Creek Enterprises	35N/10W-29D1	Helena	12	34, C-15, C-16
Carpenter, Mary M.	5N/7E-20N1	Burnt Ranch	14	27, 53, 82
Carpenter, Sarah	5N/5E-12R1	Lower South Fork	14	37, 87
Carr, Charles J. and Catherine I.	33N/10W-6D1	Helena	18	33, 85, C-19
Carr, C. E.	37N/7W-8E1	Trinity Reservoir	7	44, 90
Cedar Stock Ranch Ralston, Stewart Stewart, Graeme	35N/8W-19P1	Trinity Reservoir	13	42, 89
	35N/8W-26Q1	Trinity Reservoir	13	42
	35N/9W-36H1	Trinity Reservoir	13	42, 60
	35N/9W-36N1	Trinity Reservoir	13	42, 90
Chapman Brothers	33N/11W-25A1	Helena	18	34, 56, 85, C-13
Clearwater Ditch Schiell, L. W.	29N/11W-1C1	Hayfork Valley	29	29, 54, 83
Comstock Ditch Scott, Edwin W.	36N/7W-17D1	Trinity Reservoir	10	43, 61, 90
Costa, Frank, et al.	34N/9W-16G1 See Huston Ditch See Junkans Ditch	Middle Trinity	16	40, C-12
Costa, George L.	38N/6W-14B1	Trinity Reservoir	4	45, C-13
Covington Lumber Company	35N/8W-4K1	Trinity Reservoir	13	42, 60, C-14
Crawford, Clarence H.	31N/11W-7A1	Hayfork Valley	24	30, 54, 83
	32N/11W-28K1	Hayfork Valley	21	33, 56, 85
	32N/11W-30Q1	Hayfork Valley	21	33, 56, 85
	32N/11W-33K1	Hayfork Valley	21	33, 56, 85
Dailey, Hermis W.	6N/6E-12H1	New River	11	40, 60, 89, C-10, C-14
Dailey, Viola A.	6N/6E-12I1	New River	11	40, 60, 89
	6N/6E-12I2	New River	11	41, 60, 89
Dale, Melvin E. Rais, Alvis	32N/9W-8Q1	Middle Trinity	22	38, 58, 88
DeHaven, Ray and Roy	35N/10W-29N1	Helena	12	35, 56
Dehnhoff, William	31N/11W-4G1	Hayfork Valley	24	30, 54, 83
Delaney, Robert and Margaret	See Trinity Alps Resort			
Detillion, Doris Grotzman, Charles	31N/11W-9B1	Hayfork Valley	24	31, 55, 84
	31N/11W-9C1	Hayfork Valley	24	31, 84
	31N/11W-15B1	Hayfork Valley	24	31, 84
Detillion, Roy and Doris	See H. Leo Tewell			
Devore, R.	31N/11W-1Q1	Hayfork Valley	24	30, 54, 83
Dose, Eric	5N/6E-22C1	Burnt Ranch	14	27, 53, 82

TABLE 7 (Continued)
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Dulevitz, Phillip and Wylde	2N/7E-7H1	Upper South Fork	23	46, 91, C-10
Duncan, Ernest	33N/12W-6A1	Burnt Ranch	18	28, 53, 82
Duncan, James	31N/12W-36C1	Hayfork Valley	24	32, 55, 84
Dunkin, William C.	30N/12W-13R1	Hayfork Valley	27	30, 54, 83
Dunne, Numa P. Hill, Clair A.	37N/8W-24L1	Trinity Reservoir	7	45, 62, C-11
Durham, Henry	33N/9W-24F1	Middle Trinity	19	40, 88
Egan, William (Mrs.) Rourke, J. D.	31N/12W-23J1	Hayfork Valley	24	32, 55, 84
Ethridge, Bryan	See V. Blair			
Fisher, Hardy F.	34N/11W-1B1	Helena	15	34, C-15
Ford, Earle F.	32N/10W-1J1	Weaver Creek	21	47, 92
Foster, W. C.	See Bloss and McClary Ditch			
Fountain, Everett	6N/5E-14G1	Burnt Ranch	11	27, 53, 82
Francis Ditch Morris, J. R.	32N/11W-35A1	Hayfork Valley	21	33, 56, 85
Fullerton, Grover D.	35N/10W-20D1	Helena	12	34, 56, 85
Gambi, Mario and Peter	6N/5E-4F1	Willow Creek	11	48, 64, 92
Garrett, Lee	3N/6E-22F1	Hyampom	20	37, 86
Garrett, William, Jr.	3N/6E-15A1	Hyampom	20	36, 57, 86
	3N/6E-15H1	Hyampom	20	36, 57, 86
	3N/6E-16H1	Hyampom	20	36, 57, 86
	4N/6E-32M1	Lower South Fork	17	37, 58, 87
Gates, Grover A. and Emma E.	3N/7E-14J1	Hayfork Creek	20	29, 53, 82, C-11
	3N/7E-27C1	Hayfork Creek	20	29, 53, 82
Gleason, Walter M.	6N/5E-15Q1	Lower South Fork	11	38, 58
Gorsuch, Ralph Schnetzler, George	37N/7W-19N1	Trinity Reservoir	7	44, 61, C-12
Greeneisen, Robert	36N/7W-21L1	Trinity Reservoir	10	43, 61, 90
Greenleaf, Gene	3N/6E-25B1	Hyampom	20	37, 58, 87, C-12
Gribble, Emily	33N/10W-7J1	Helena	18	33, 85
	33N/10W-8H1	Helena	18	34, 85
Grotzman, Charles	See Doris Detillion			
Haines, Thornton	3N/6E-22M1	Hyampom	20	37, 86

TABLE 7 (Continued)
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Halbert, Floyd	31N/12W-21E1	Hayfork Valley	24	32, 55, 84
Landaker, Luda	31N/12W-21F1	Hayfork Valley	24	32, 55, 84
Hall, Hugh	31N/12W-28D1	Hayfork Valley	24	32, 55, 84
Halverson, H. R. and W. L. Kimbel, T. S. Shapley, Albert L. and Emily Williams, William and Lilley	32N/8W-30M1	Middle Trinity	22	38, 58, 88, C-14
Hard Hats Trailer Park	33N/8W-17M1	Middle Trinity	19	39, C-22
Hawkins, W. J. and Sons	31N/12W-11M2	Hayfork Valley	24	32, 55
Helfenstein, Joseph	1S/7E-5C1	Upper South Fork	28	46, 63, 91, C-13
Henderson, Caroline	6N/5E-25D1	Lower South Fork	11	38, 87
Heninger Brothers	38N/9W-35N1	Trinity Reservoir	4	46, 63, C-14
Hill, Clair A.	See Numa P. Dunne			
Hinters, Bryan	34N/11W-29B1	Helena	15	34, 56, 85
	34N/11W-29B2	Helena	15	34, 56, 85
Holcome, Brizard (Mrs.)	6N/6E-21L1	Burnt Ranch	11	27, 53, 82
Hoopla Indian Reservation	See United State Bureau of Indian Affairs			
Hostetter, A. E.	33N/12W-3P1	Burnt Ranch	18	28, 82
Hoxie, Laura E.	See Myrtle W. Bonner			
Hubbard, Katherine Kersch, Louis J. and Nora M.	35N/8W-10L1	Trinity Reservoir	13	42, 89, C-20
Huston Ditch Costa, Frank, et al.	34N/9W-8H1	Middle Trinity	16	40, 59, 89
Irving, Jim	6N/6E-33C1	Burnt Ranch	11	28, 53, 82
Jackson, Harold, Ranch	See Woodbury Ditch			
Jameson Ditch Brizard Company	7N/5E-30P1	Willow Creek	8	48, 64, 92
Jones, Waldo I.	31N/12W-9G1	Hayfork Valley	24	31, 84
	31N/12W-9H1	Hayfork Valley	24	31, 55, 84
	31N/12W-9K1	Hayfork Valley	24	31, 84
Jordan, L. V.	32N/10W-13N1	Middle Trinity	21	39, 59, 88
	32N/10W-14Q1	Middle Trinity	21	39, 59, 88
Junction City Powerhouse Pacific Gas and Electric Co.	34N/11W-1H1	Helena	15	34, 56
Junkans Ditch Costa, Frank, et al.	34N/9W-16B1	Middle Trinity	16	40, 59, 89, C-12

TABLE 7 (Continued)
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Kaut, Paul F.	5N/6E-23N1 5N/6E-35F1	Burnt Ranch Burnt Ranch	14 14	27, 53, 82 27, 53, 82
Kelley, Thomas B., et al.	3N/6E-23Q1 3N/6E-24B1	Hyampom Hyampom	20 20	37, 58, 86 37, 58, 87
Kennedy, Clyde C. Manlove, William F.	33N/12W-5N1	Burnt Ranch	18	28, 53, 82, C-16
Kercher, Arthur	38N/8W-32C1	Trinity Reservoir	4	45, 62
Kersch, Louis J. and Nora M.	35N/8W-9K1	Trinity Reservoir	13	42, 89
	35N/8W-10E1	Trinity Reservoir	13	42, 60, 89, C-10,
	See Katherine S. Hubbard			C-15
Kimbel, T. S.	See H. R. and W. L. Halverson			
Kozel, Rolf and Katherine	38N/8W-32K1	Trinity Reservoir	4	45, 62
Kozel, Rolf and Katherine Rother, F.	38N/8W-32L1	Trinity Reservoir	4	46, 62, 91, C-15
Kurysz, George J. and Ruth S.	30N/12W-12E1	Hayfork Valley	27	30, 54, 83
Ladd, Grover and Willard	7N/7E-28M1	New River	8	41, 60, 89
	7N/7E-7P1	Hoopa	8	35, 60, 89
Laffranchini, Allen	31N/12W-10N1	Hayfork Valley	24	31, 84
	31N/12W-16R1	Hayfork Valley	24	32, 84
Landaker, Luda	See Floyd Halbert			
Leas, Bernie I. and Leslie	33N/9W-35C1	Middle Trinity	19	40, 59, 88
Lee, Jim	38N/7W-16Q1	Trinity Reservoir	4	45, 62, 91
Lee, Jim Leitzell, Wayne	38N/7W-20F1	Trinity Reservoir	4	45, 62, 91
	38N/7W-20F2	Trinity Reservoir	4	45, 62, 91
Lee, Moon	34N/10W-35N1	Weaver Creek	15	22, 47, 64, 92
Leeper, Ralph	33N/9W-35H1	Middle Trinity	19	40, 89
Leeper, Ralph Lunden, Arthur E.	33N/9W-35D1	Middle Trinity	19	40, 59, 88
Leitzell, Wayne	See Jim Lee			
Lorenz, Floyd and Grover	33N/10W-35F1	Middle Trinity	18	40, 59, 89
Lunden, Arthur E.	See Ralph Leeper			
Macumber, William, Sr.	3N/7E-20Q1	Hayfork Creek	20	29, 53, 82
Maire, Louis A., et al.	6N/7E-7J1	New River	11	41, C-19
	6N/7E-8M1	New River	11	41
Manlove, William F.	See Clyde C. Kennedy			
Marshall, Barbara	8N/4E-13M2	Hoopa	5	35, 86, C-10

TABLE 7 (Continued)
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
McCoy, Pearl E.	37N/8W-3F1	Trinity Reservoir	7	44, 62, 91
McDonald, E. K.	36N/7W-8Q1	Trinity Reservoir	10	43, 61, 90
	36N/7W-9N1	Trinity Reservoir	10	43, 61, 90
	37N/7W-29E1	Trinity Reservoir	10	44, 62, 90
	37N/7W-29F1	Trinity Reservoir	10	44, 62, 90
	See Bloss and McClary Ditch			
McDonald, J. W. and Viva	37N/8W-4H1	Trinity Reservoir	7	44, 62, 91
McKnight, James H. and Cleone I.	See Rule-Pipe Ditch			
Mitchel, Glen	4N/7E-24R1	Hayfork Creek	17	29, 53, 83
Monroe, G. W.	See V. Blair			
Montgomery, David E.	34N/11W-16H1	Helena	15	34, 56, C-16
Morris, J. R.	See Francis Ditch			
Mortensen, Nellie E.	3N/6E-9R1	Hyampom	20	36, 57, 86
Morton, William L. and Rosa	6N/5E-18J1	Lower South Fork	11	38, 87, C-10
	6N/5E-18R1	Lower South Fork	11	38, 87, C-10
Nelson, George W.	9N/5E-14P1	Hoopa	3	36, C-11
Nelson, T. R. Wallace, T.	32N/9W-33R1	Middle Trinity	22	39, 59, 88
Neubauer, John and Margaret	37N/8W-3C1	Trinity Reservoir	7	44, 62
	37N/8W-4C1	Trinity Reservoir	7	44, 62, 91
Nielsen, John	35N/7W-7H1	Trinity Reservoir	13	41, 89
	35N/7W-8R1	Trinity Reservoir	13	41, 60
	35N/7W-17D1	Trinity Reservoir	13	41, 60, 89
Norgaar Sawmill	31N/12W-1111	Hayfork Valley	24	31, 55
Ostrat, John	28N/12W-6J1	Upper South Fork	30	46, 63, C-13
Ostrat, Linda M.	29N/12W-32P1	Upper South Fork	29	46, 92, C-11
Pat Veneer Company	See Salyer Stud Mill			
Patton, Ralph and Gertrude	31N/12W-36P1	Hayfork Valley	24	32, 55, 84
Pacific Gas and Electric Company	See Junction City Powerhouse			
Phares, Eugene T. and Bertha C.	31N/12W-4M1	Hayfork Creek	24	29, 54, 83, C-22
	31N/12W-5R1	Hayfork Creek	24	29, 83
Phillips, Bert A.	32N/9W-5P1	Middle Trinity	22	38, 58, 88
	32N/10W-10R1	Middle Trinity	21	39, 59, 88
Pool, Marjorie E.	See Myrtle W. Bonner			
Rais, Alvis	See Melvin E. Dale			
Ralston, Stewart	See Cedar Stock Ranch			

TABLE 7 (Continued)
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Randolph, Lena	1S/8E-29M1	Upper South Fork	26	46, 63, 91, C-10 C-15
Ranier, Donald and Elizabeth	35N/9W-13R1	Trinity Reservoir	13	42, 60, 90, C-10 C-11
Rankin, A. D.	38N/8W-33K1	Trinity Reservoir	4	46, 63, 91
Riewert, George E.	29N/11W-1P1	Hayfork Valley	29	29, 54, 83
	29N/11W-11A1	Hayfork Valley	29	29, 54, 83
Robáds, R. E.	6N/6E-36H1	New River	11	41, C-11
Rochlin Veneer and Plywood Company	7N/5E-28N1	Willow Creek	8	48, C-19
Ross, Clifford and Fred	32N/9W-31Q1	Middle Trinity	22	38, 59, 88
Rother, F.	See Rolf and Katherine Kozel			
Rourke, J. D.	See Mrs. William Egan			
Rule-Pipe Ditch McKnight, James H. and Cleone I.	34N/9W-32E1	Weaver Creek	16	47, 64, 92, C-20
Russell, Edward J. and Ruth E.	34N/11W-26M1	Helena	15	34, 56, 85, C-14
Salzer Stud Mill; Division of Pat Veneer Company	6N/5E-10P1	Willow Creek	11	48, 64
Schiell, L. W.	See Clearwater Ditch			
Schnetzer, George	See Ralph Gorsuch			
Scott, Edwin W.	36N/7W-16B1	Trinity Reservoir	10	43, 61, 90
	See Comstock Ditch			
Seay, James H. and Mildred	32N/10W-31P1	Hayfork Valley	21	32, 55, 84
	32N/10W-31R1	Hayfork Valley	21	33, 55, 85
Seymour, C. B. and H. B.	37N/7W-7E1	Trinity Reservoir	7	44, 61, 90
Shapley, Albert L. and Emily	See H. R. and W. L. Halverson			
Shaw, Jack H., Sr.	5N/8E-30D1	Burnt Ranch	14	27, C-14
Smith, L. A.	See B. C. Austin			
Smith, Ralph L., Lumber Company	29N/11W-11H1	Hayfork Valley	29	29, 54, C-17
	29N/11W-11H2	Hayfork Valley	29	30, C-17
Snow, Miriam M.	37N/8W-11C1	Trinity Reservoir	7	45, 91, C-12
Spears, Joseph J.	35N/10W-19Q1	Helena	12	34, 56, C-14
Spellenberg, Homer and Carol	5N/6E-25G1	Burnt Ranch	14	27, 82
	5N/6E-25G2	Burnt Ranch	14	27, 82
Stewart, Graeme	See Cedar Stock Ranch			
Stone, C.	See V. Blair			
Stott, Reo D.	32N/9W-4E1	Middle Trinity	22	38, 88
	33N/11W-3L1	Helena	18	34, 56

TABLE 7 (Continued)
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Swink, J. E.	See V. Blair			
Terry, John Q. and Anna E.	34N/11W-31A1	Burnt Ranch	15	28, C-12
Tewell, H. Leo	31N/11W-3N1	Hayfork Valley	24	30, 83
Todd, Max A.	5N/6E-18N1	Lower South Fork	14	37, 58, 87
	5N/6E-18P1	Lower South Fork	14	38, 58, 87
Trimble, Jim	4N/6E-16H1	Lower South Fork	17	37, 58, 87
Trin-Co Forest Products	33N/9W-7G1	Weaver Creek	19	47, 63
Trinity Alps Land Company	33N/8W-19A1	Middle Trinity	19	39, C-21
Trinity Alps Lumber Company	31N/12W-11R1	Hayfork Valley	24	32, 55
	31N/12W-12Q1	Hayfork Valley	24	32, 55
Trinity Alps Resort Delaney, Robert and Margaret	35N/9W-28A1	Trinity Reservoir	13	42, 60, 90
	35N/9W-28N1	Trinity Reservoir	13	42, C-12
Trinity County Water Works District No. 1	31N/11W-7H1	Hayfork Valley	24	22, 31, 55, C-18
Trinity Farm and Cattle Company	36N/7W-11H1	Trinity Reservoir	10	43, 61, 90
	36N/7W-14D1	Trinity Reservoir	10	43, 61, 90
Trumble, Frank	38N/7W-3F1	Trinity Reservoir	4	45, 62, 91
	38N/7W-10D1	Trinity Reservoir	4	45, 62, 91
	39N/7W-14N1	Trinity Reservoir	2	46, 63, 91
United States Bureau of Indian Affairs; Hoopa Indian Reservation	7N/5E-7D1	Hoopa	8	35, 37
	8N/4E-2R1	Hoopa	5	35, 57, 86
	8N/4E-10P1	Hoopa	5	35, 57, 86
	8N/4E-13M1	Hoopa	5	35, 57, 86
	8N/4E-26F1	Hoopa	5	22, 36
	8N/4E-26F2	Hoopa	5	36, 57, 86
United States Bureau of Reclamation	33N/8W-19A2	Middle Trinity	19	22, 39, C-22
United States Plywood Corporation	32N/10W-12B1	Middle Trinity	21	39, 59
Van Alstyne, Thomas F.	2N/7E-5R1	Upper South Fork	23	46, 91, C-11
Van Vleet Wood Products	8N/5E-31F1	Hoopa	5	36
Wagner, Bud	36N/6W-6C1	Trinity Reservoir	10	43, 60, 90
Wallen, Frank	6N/6E-16Q1	Burnt Ranch	11	27, 53, 82
Wallace, T.	See T. R. Nelson			
Weaver, Kent M. and Jean S.	37N/8W-11B1	Trinity Reservoir	7	45, 91, C-18
Wellock, Ben	33N/9W-26E1	Middle Trinity	19	40, 59, 88
Whipple, John C.	37N/6W-30K1	Trinity Reservoir	7	43, 61, 90
	37N/6W-30Q1	Trinity Reservoir	7	44, 61, C-17
Williams, William and Lilley	See H. R. and W. L. Halverson			

TABLE 7 (Continued)
INDEX TO SURFACE WATER DIVERSIONS IN
TRINITY RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Wilson, Harold J. and Mary J.	33N/8W-15M1	Middle Trinity	19	39, 59, 88, C-21
	33N/8W-20H1	Middle Trinity	19	39, 59, 88
Wood, James R.	32N/11W-19F1	Hayfork Valley	21	33, 55, C-15
Woodbury Ditch Harold Jackson Ranch	30N/11W-12D1	Hayfork Valley	27	30, 54, 83
Wooden, Donald W.	6N/5E-9K1	Willow Creek	11	48, 64, 92, C-12
Wright, William B.	33N/9W-12L1	Middle Trinity	19	39, 59, 88, C-14
Young, Daniel F.	See Silas and Betty I. Young			
Young, Silas and Betty I.	7N/5E-35D1	Willow Creek	8	48
Young, Daniel F.	7N/5E-35D2	Willow Creek	8	48
Youngblood, Phyllis	3N/6E-21J1	Hyampom	20	36, 58, 86

CHAPTER III. LAND USE

The results of a survey of water uses and water facilities in the Trinity River Hydrographic Unit were presented in Chapter II. In this chapter are reported the results of a survey of present land uses as related to water use. Also included is a brief summary of historical conditions. A thorough knowledge of the nature and extent of land and water uses under past and existing conditions within this hydrographic unit is one of the primary requisites in evaluating future water requirements within the unit.

Historical Land Use

As previously noted, the earliest development in the Trinity River Hydrographic Unit took place with the discovery of gold in 1848. E. M. George is recorded to have led a party to develop Hayfork Valley in 1851 and by 1860, practically all of the agricultural land in the valley had been taken and was being improved. There are little data available as to the acreage of agricultural lands involved.

An early land use survey, including Trinity River Hydrographic Unit, was reported in two reports by Frank Adams: (1) "Irrigation Resources of Northern California," published in "Report of the Conservation Commission of the State of California," January 1, 1913, and (2) Bulletin 254 by the U. S. Department of Agriculture, Office of Experiment Station, "Irrigation Resources of California and Their Utilization," published in 1913.

Mr. Adams reported that in 1912 there were some 6,355 acres of irrigated lands in the hydrographic unit.

Present Land Use

A detailed survey of land uses in the Trinity River Hydrographic Unit was conducted in 1957 as a part of this investigation. The land uses mapped in this survey as related to water use fall into four major categories: irrigated lands, dry-farmed lands, urban lands, and recreational lands; and one minor category: naturally high water table lands, such as natural meadowlands. Lands not falling into any of these five categories were mapped as native vegetation. The various types of land use mapped in 1957 are delineated on Sheets 1 through 31 of Plate 2. The acreages of land uses within each subunit are presented in Table 8. The values represent gross acreages, including non-water-service areas such as roads, ditches, building and storage areas, and miscellaneous rights-of-way, which occur within the mapped areas.

Methods and Procedures

The land use survey and the location of surface water diversions were accomplished by relating field observations to aerial photographs having a scale of about 1:20,000. Stereoscopes were used to assist in the field mapping procedure. As each point of diversion was located, it was plotted on the aerial photograph and as the use of each parcel of land was determined, it was delineated on the aerial photograph. The hydrographic unit was traversed by automobiles as completely as roads and terrain permitted. Where necessary because of poor accessibility inspections were made on foot.

TABLE 8
LAND USE IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Subunit and county	Irrigated lands	Meadowlands	Dry-farmed lands	Urban lands	Recreational lands
Burnt Ranch Trinity County	150	10	30	30	140
Hayfork Creek Trinity County	140	0	0	0	10
Hayfork Valley Trinity County	1,110	10	0	720	40
Helena Trinity County	80	0	70	20	30
Hoopla Humboldt County	200	0	10	220	20
Hyampom Trinity County	190	0	0	0	10
Lower South Fork Trinity County	60			0	10
Humboldt County	10	0	0	10	0
Total	70	0	0	10	10
Middle Trinity Trinity County	570	0	370	200	30
New River Trinity County	90	0	0	0	20
Trinity Reservoir Trinity County	1,640*	320*	40*	20	110
Upper South Fork Trinity County	90	0	10	0	20
Weaver Creek Trinity County	40	0	0	260	0
Willow Creek Humboldt County	110	0	80	120	40
TRINITY COUNTY	4,160	340	520	1,250	420
HUMBOLDT COUNTY	320	0	90	350	60
TOTAL	4,480	340	610	1,600	480

*Includes lands within high-water line of Trinity Reservoir now under construction: 1,300 acres irrigated lands, 150 acres meadowlands, and 30 acres dry-farmed lands.

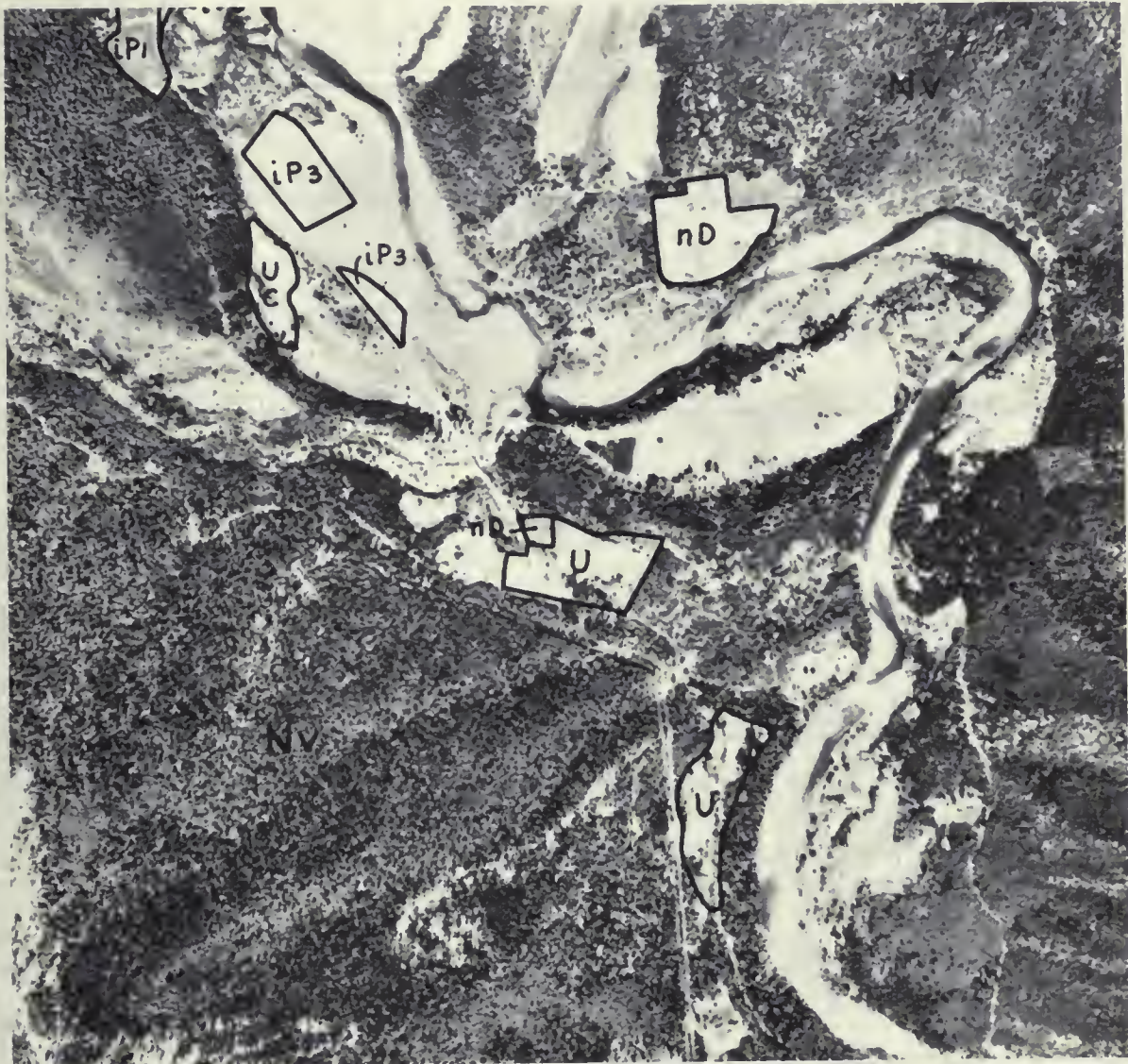
An example of an aerial photograph with land use data delineated on it is shown on page 81 .

After completion of the field mapping, the data delineated on the photographs were transferred to copies of United States Geological Survey quadrangle maps reproduced at a scale of 1:24,000. This procedure was necessary to bring the delineated areas to a common scale for accurate determination of acreages, since the scale of the aerial photographs utilized varied widely. A series of these maps showing the location of all diversions and the fields, including idle and fallow lands associated with each irrigation diversion, was colored according to the land use categories and was reviewed by local parties concerned. These work maps were then used in the preparation of Plate 2.

Another series of these maps was used in computing the acreages of the land uses. Each delineated area on these maps was manually cut out and was carefully weighed on an analytical balance. These weights were converted to acreages using ratios determined for each of the individual maps. This method has proven to be a very expedient and accurate means of area determination where a large number of small parcels are involved.

Irrigated Lands

Irrigated lands, as designated in this report, include all agricultural lands which receive water artificially applied. Acreages of irrigated lands are reported in Table 9 by surface water diversion and by subunits showing the crop grown. These irrigated lands are segregated into pasture, alfalfa hay and pasture, other



Example of land use delineated on aerial photograph

Legend

iPl . . irrigated alfalfa
 iP3 . . irrigated mixed pasture
 nD. . . nonirrigated deciduous orchard
 U . . . Urban
 UC. . . Urban Commercial
 NV. . . Native Vegetation

TABLE 9
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
<u>H B & M</u>					<u>BURNT RANCH SUBUNIT</u>							
5N/6E-22C1	Eric Dose		8							8		8
5N/6E-25G1	Homer and Carol Spellenberg	9								9		9
5N/6E-25G2	Homer and Carol Spellenberg	4								4		4
5N/6E-35F1 5N/6E-23N1	Paul F. Kaut		41							41		41
5N/7E-20N1	Mary M. Carpenter	7								7		7
6N/5E-14G1	Everett Fountain	26	5							31		31
6N/6E-16Q1	Frank Wallen	6								6		6
6N/6E-21L1	Mrs. Brizard Holcome				10					10		10
6N/6E-21N1	Anderquist Lumber Company, Inc.		10							10		10
6N/6E-33C1	Jim Irving							9		9		9
<u>M D B & M</u>												
33N/12W-3P1	A. E. Hostetter		5							5		5
33N/12W-5N1	Clyde C. Kennedy William F. Manlove		7							7		7
33N/12W-6A1	Ernest Duncan		5							5		5
Total Burnt Ranch Subunit		52	81	0	10	0	0	9	0	152	0	152
<u>H B & M</u>					<u>HAYFORK CREEK SUBUNIT</u>							
3N/7E-14J1	Grover A. and Emma E. Gates										14	14
3N/7E-20Q1	William Macumber, Sr.		5							5		5
3N/7E-27C1	Grover A. and Emma E. Gates		15							15		15

* Received partial irrigation

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
<u>H B & M</u>												
4N/7E-24R1	Glenn Mitchel	30	8		23					61		61
<u>M D B & M</u>												
31N/12W-4M1	Eugene T. and Bertha C. Phares	15	9		5					29		29
31N/12W-5R1	Eugene T. and Bertha C. Phares										16	16
Total Hayfork Creek Subunit		45	37	0	28	0	0	0	0	110	30	140
29N/11W-1C1	Clearwater Ditch	24								24		24
29N/11W-1P1	George E. Riewert				10					10		10
29N/11W-11A1	George E. Riewert	4								4		4
30N/11W-12D1	Woodbury Ditch	21			15	4				40		40
30N/11W-17P1	Burton Byard		20*							20		20
30N/11W-20E1												
30N/11W-19A1	Burton Byard				16*					16		16
30N/12W-12E1	George J. and Ruth S. Kuryz		10							10		10
30N/12W-13R1	William C. Dunkin		12							12		12
31N/11W-1Q1	R. Devore		7							7		7
31N/11W-3N1	H. Leo Tewell	7								7		7
31N/11W-4G1	William Dehnhoff	9								9		9
31N/11W-7A1	Clarence H. Crawford		76							76		76

* Received partial irrigation

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
M D B & M		HAYFORK VALLEY SUBUNIT (Continued)										
31N/11W-9B1	Doris Detillion Charles Grotzman	25								25		25
31N/11W-9C1	Doris Detillion Charles Grotzman	18								18		18
31N/11W-15B1	Doris Detillion Charles Grotzman					13				13		13
31N/12W-3N1 31N/12W-10C1	R. Beamer				9*					9	37	46
31N/12W-9G1	Waldo I. Jones		6							6		6
31N/12W-9H1	Waldo I. Jones	5			9					14		14
31N/12W-9K1	Waldo I. Jones		30							30		30
31N/12W-10N1	Allen Laffranchini	12*								12		12
31N/12W-11M1 31N/12W-11E1	Frieda Albiez	27								27		27
31N/12W-16R1	Allen Laffranchini	19	11							30		30
31N/12W-21E1	Floyd Halbert Luda Landaker		12*							12		12
31N/12W-21F1	Floyd Halbert Luda Landaker	6	30							36		36
31N/12W-23J1	J. D. Rourke Mrs. William Egan		6*		38*					44	40	84
31N/12W-28D1	Hugh Hall	15								15		15
31N/12W-36C1	James Duncan				12*					12		12
31N/12W-36P1	Ralph and Gertrude Patton				8*					8		8
32N/10W-31P1	James H. and Mildred Seay	6								6		6

* Received partial irrigation

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
M D B & M					HAYFORK VALLEY SUBUNIT (Continued)							
32N/10W-31R1	James H. and Mildred Seay					5*				5		5
32N/11W-28Q1	Clarence H. Crawford	21								21		21
32N/11W-30Q1	Clarence H. Crawford	120	286							406		406
32N/11W-33Q1	Clarence H. Crawford	9								9		9
32N/11W-35A1	Francis Ditch	41								41		41
Total Hayfork Valley Subunit		389	506	0	117	22	0	0	0	1,034	77	1,111
					HELENA SUBUNIT							
32N/10W-5E1 32N/10W-6H1	Sam Alexander, Jr.										10	10
33N/10W-6D1	Charles J. and Catherine I. Carr		4							4		4
33N/10W-7J1	Emily Gribble										18	18
33N/10W-8H1	Emily Gribble										9	9
33N/11W-25A1	Chapman Brothers				9					9		9
34N/11W-26M1	Edward J. and Ruth E. Russell							5		5		5
34N/11W-29B1	Bryan Hinters		3					3		6		6
34N/11W-29B2	Bryan Hinters				8					8		8
35N/10W-20D1	Grover D. Fullerton	6								6		6
Total Helena Subunit		6	7	0	17	0	0	8	0	38	37	75

* Received partial irrigation

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
<u>H B & M</u>					<u>HOOPA SUBUNIT</u>							
8N/4E-2R1	United States Bureau of Indian Affairs; Hoopa Indian Reservation	6	88	20	30		10		8	162		162
8N/4E-10P1	United States Bureau of Indian Affairs; Hoopa Indian Reservation				9					9		9
8N/4E-13M1	United States Bureau of Indian Affairs; Hoopa Indian Reservation	9							6	15		15
8N/4E-13M2	Barbara Marshall										6	6
8N/4E-26P2	United States Bureau of Indian Affairs; Hoopa Indian Reservation		6							6		6
Total Hoopa Subunit		15	94	20	39	0	10	0	14	192	6	198
					<u>HYAMPOM SUBUNIT</u>							
3N/6E-9R1	Nellie E. Mortensen		8							8		8
3N/6E-15A1	William Garrett, Jr.	7								7		7
3N/6E-15H1	William Garrett, Jr.				12					12		12
3N/6E-16H1	William Garrett, Jr.		5							5		5
3N/6E-21J1	Phyllis Youngblood		44							44		44
3N/6E-22F1	Lee Garrett		8							8		8
3N/6E-22M1	Thornton Haines	20								20		20
3N/6E-23Q1	Thomas B. Kelly, et al.				53					53		53

* Received partial irrigation

TABLE 9 (Continued)

IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Division name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
<u>H B & M</u>												
3N/6E-24B1	Thomas B. Kelly, et al										6	6
3N/6E-24R1	Robert L. and M. A. Augustine										8	8
3N/6E-25B1	Gene Greenleaf		4							4		4
3N/6E-27A1	Leo F. Amort	<u>18</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>18</u>	<u>—</u>	<u>18</u>
Total Hyampom Subunit		45	69	0	65	0	0	0	0	179	14	193
4N/6E-16H1	Jim Trimble		21*							21		21
4N/6E-32M1	William Garrett, Jr.		21							21		21
5N/5E-12R1	Sarah Carpenter				3					3		3
5N/6E-18P1	Max A. Todd	7*			5*					12		12
5N/6E-18N1												
6N/5E-18Y1	William L. and Rosa Norton	7			4					11		11
6N/5E-18R1												
6N/5E-25D1	Caroline Henderson	<u>4</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>4</u>	<u>—</u>	<u>4</u>
Total Lower South Fork Subunit		18	42	0	12	0	0	0	0	72	0	72

* Received partial irrigation

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
M D B & M 32N/8W-30M1	H. R. and W. L. Halverson T. S. Kimbel Albert L. and Emily Shapley William and Lilley Williams			MIDDLE TRINITY SUBUNIT							10	10
32N/9W-4E1	Reo D. Stott										24	24
32N/9W-5P1	Bert A. Phillips				32					32		32
32N/9W-8Q1	Melvin E. Dale Alvis Rais	10			27					37		37
32N/9W-31Q1	Clifford and Fred Ross	18			28					46		46
32N/9W-33R1	T. R. Nelson T. Wallace		128							128		128
32N/10W-10R1	Bert A. Phillips	36								36		36
32N/10W-13N1	L. V. Jordan				15					15		15
32N/10W-14Q1	L. V. Jordan	9			10					19		19
33N/8W-15M1	Harold J. and Mary J. Wilson	25								25		25
33N/8W-20H1	Harold J. and Mary J. Wilson	5								5		5
33N/9W-12L1	William B. Wright		18							18		18
33N/9W-24F1	Henry Durham										8	8
33N/9W-26E1	Ben Wellock	3								3		3
33N/9W-35C1	Bernie I. and Leslie Leas	13	3							16		16
33N/9W-35D1	Ralph Leeper Arthur E. Lunden	87								87		87

* Received partial irrigation

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
<u>M D B & M</u>		MIDDLE TRINITY SUBUNIT (Continued)										
33N/9W-35H1	Ralph Leeper										17	17
33N/10W-35F1	Floyd and Grover Lorenz	7								7		7
34N/9W-8H1	Huston Ditch				13					13		13
34N/9W-16B1	Junkans Ditch					28				28		28
Total Middle Trinity Subunit		213	149	0	125	28	0	0	0	515	59	574
<u>H B & M</u>		NEW RIVER SUBUNIT										
6N/6E-12H1	Hermis W. Dailey	5			6					11		11
6N/6E-12L2	Viola A. Dailey	14			8			32		54		54
6N/6E-12L1												
7N/7E-28M1	Grover and Willard Ladd	2			13		7			22		22
7N/7E-7F1 (Hoopa Subunit)												
Total New River Subunit		21	0	0	27	0	7	32	0	87	0	87
<u>M D B & M</u>		TRINITY RESERVOIR SUBUNIT										
35N/7W-7H1	John Nielsen										22	22
35N/7W-17D1	John Nielsen	14	19							33		33
35N/8W-9K1	Louis J. and Nora M. Kersch		10							10		10
35N/8W-10E1	Louis J. and Nora M. Kersch		10							10		10
35N/8W-10L1	Katherine S. Hubbard Louis J. and Nora M. Kersch		45							45		45
35N/8W-19P1	Cedar Stock Ranch										75	75

* Received partial irrigation

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
TRINITY RESERVOIR SUBUNIT (Continued)												
M D B & M												
35N/9W-13R1	Donald and Elizabeth Ranier		6							6		6
35N/9W-28A1	Trinity Alps Resort		51							51		51
35N/9W-36N1	Cedar Stock Ranch										117	117
36N/6W-6C1	Bud Wagner	35								35		35
36N/7W-8K1	Adrian B. and Mary R. Bauchou	9								9		9
36N/7W-8Q1	E. K. McDonald	25								25		25
36N/7W-9N1	E. K. McDonald	6								6		6
36N/7W-11H1	Trinity Farm and Cattle Company	147	270							417		417
36N/7W-14D1	Trinity Farm and Cattle Company	292								292		292
36N/7W-16B1	Edwin W. Scott	22								22		22
36N/7W-17D1	Comstock Ditch	123								123		123
36N/7W-18B1	Bloss and McClary Ditch	12		10						22		22
36N/7W-21L1	Robert Greeneisen		18*							18	27	45
37N/6W-30K1	John C. Whipple	27								27		27
37N/7W-7E1	C. B. and H. B. Seymour		6							6	12	18
37N/7W-7G1	Myrtle W. Bonner Laura E. Hoxie Marjorie E. Pool		14							14		14
37N/7W-8E1	C. E. Carr										49	49
37N/7W-29F1 37N/7W-29E1	E. K. McDonald	41								41		41

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
TRINITY RESERVOIR SUBUNIT (Continued)												
M D B & M		5								5		5
37N/8W-3F1	Pearl E. McCoy		10							10		10
37N/8W-4C1	John and Margaret Neubauer		7							7		7
37N/8W-4H1	J. W. and Viva McDonald	7								7		7
37N/8W-11B1	Kent M. and Jean S. Weaver										5	5
37N/8W-11C1	Miriam M. Snow		8*			5*				13		13
38N/7W-3F1	Frank Trumble	18								18		18
38N/7W-16Q1	Jim Lee	14								14		14
38N/7W-20F1	Jim Lee											
38N/7W-20F2	Wayne Leitzell											
38N/8W-32L1	Rolf and Katherine Kozel	9	17							17	6	15
38N/8W-33K1	A. D. Rankin		12							12		12
39N/7W-14N1	Frank Trumble	806	503	10	0	5	0	0	0	1,324	313	1,637
Total Trinity Reservoir Subunit												
UPPER SOUTH FORK SUBUNIT												
H B & M		10			7					17		17
2N/7E-5R1	Thomas F. Van Alstyne										11	11
2N/7E-7H1	Philip and Wylde Dulevitz											
1S/7E-5C1	Joseph Helfenstein				5			1		6		6
1S/8E-29M1	Lena Randolph										10	10

* Received partial irrigation

TABLE 9 (Continued)
IRRIGATED LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT, 1957
(In acres)

Location number	Diversion name or owner	Pasture			Alfalfa hay and pasture	Other hay and grain	Field crops	Orchard	Truck crops	Total lands irrigated	Idle irrigated lands	Total
		Mixed	Native	Meadow								
M D B & M												
29N/12W-32P1	Linda M. Ostrat	—	—	—	—	—	—	—	—	—	42	42
Total South Fork Subunit		10	0	0	12	0	0	1	0	23	63	86
32N/10W-1J1	Earle F. Ford										6	6
34N/9W-29N1 34N/9W-29N2	William L. Alley		14							14		14
34N/9W-29N1 34N/9W-29N2	Kenneth J. Biggerstaff		5							5		5
34N/9W-32D1	Kenneth J. Biggerstaff		5							5		5
34N/9W-32E1	Rule-Pipe Ditch	3								3		3
34N/10W-35N1	Moon Lee	2								2		2
Total Weaver Creek Subunit		12	24	0	0	0	0	0	0	36	6	42
H B & M												
6N/5E-4F1	Mario and Peter Gambi							21		21		21
6N/5E-9K1	Donald W. Wooden								15	15		15
7N/5E-30P1	Jameson Ditch	31	—	—	43	—	—	—	4	78	—	78
Total Willow Creek Subunit		31	0	0	43	0	0	21	19	114	0	114
Trinity County		1,610	1,418	10	409	55	7	50	0	3,559	599	4,158
Humboldt County		53	94	20	86	0	10	21	33	317	6	323
Total		1,663	1,512	30	495	55	17	71	33	3,876	605	4,481

* Received partial irrigation

hay and grain, field crops, orchard, truck crops and idle irrigated lands. Pasture was further subdivided into mixed, native, and meadow pasture; the latter comprising native pasture lands having a high water table induced by the application of irrigation water. Idle irrigated lands are those lands which were not irrigated in the year of survey but which had been irrigated within the preceding three years. Fallow irrigated lands are those cultivated lands which may be irrigated during the year of survey, but which at the time of survey were only tilled and not planted to a crop. There were no fallow irrigated lands mapped during 1957.

The irrigated lands were identified on the work maps by diversion service area and by crops irrigated, but on Plate 2 they are grouped into three categories: (1) those lands which receive a full irrigation during the year of survey, (2) those lands which received only a partial irrigation because of insufficient water supply, and (3) those lands usually irrigated but which were idle in 1957.

Naturally High Water Table Lands

In addition to the lands which receive applied water as described above, there are lands supporting vegetation utilizing water from a naturally high water table, such as mountain meadows or lands adjacent to lakes and streams. These are shown on Plate 2 as "naturally irrigated meadowlands" and are listed in Table 8 as "meadowlands."



Illustration 12 (top) Cattle grazing

Illustration 13 (bottom) Hayfork Valley



Dry-Farmed Lands

Dry-farmed lands are those lands normally planted to a crop, but which do not receive applied water. This includes all lands so farmed whether or not a crop is produced in the year of survey. Lands are mapped as "dry-farmed idle" if uncultivated in the year of survey, and as "dry-farmed fallow" if tilled but without a crop. However, these are included in Table 8 and shown on Plate 2 as dry-farmed lands. Lands which had been idle for more than three years and appear to have reverted to "native vegetation" were so mapped.

It should be noted that the term "dry-farmed" as used herein refers to the farming practice on these lands and not to a lack of soil moisture.

Since non-cultivated rangelands with native cover are usually indistinguishable from similar lands not used for grazing purposes, both types are designated as native vegetation. Water use in both cases is essentially the same and is dependent upon precipitation.

Urban Lands

Urban lands include the total areas of cities, towns, small communities, industrial plots, and military reservations, which are large enough to be delineated. Also included are parks, golf courses, race tracks and cemeteries within or near urban boundaries. The acreages represent gross delineations, including streets and vacant lots, and are, therefore, not necessarily

fully developed at the present time. In this survey the boundaries of urban communities were delineated to include all lands with a density of one house or more per two acres. Military reservations are included in their entirety regardless of the extent of development.

Recreational Lands

Recreational lands are mapped on aerial photographs in the field in four categories; (1) residential, (2) commercial, (3) camp and trailer sites and (4) parks. Recreational residential lands include permanent and summer home tracts within a primarily recreational area. The estimated density of homes per acre was also indicated. Recreational commercial lands include those containing motels, resorts, hotels, stores, restaurants and similar commercial establishments in primarily recreational areas. Lands mapped in the camp and trailer sites category include those areas so used within primarily recreational areas outside the boundaries of parks. The entire area within the boundaries of parks is included without regard to specific uses within them. Obviously, nearly all of the mountainous and water surface areas are suitable for some use such as hunting, fishing, hiking, picnicking and other recreational activities of this nature. For the purpose of this land use survey, however, consideration is given only to those lands where some fairly intensive development occurs requiring water service.

The recreational lands are combined into one group in Table 8 and on Plate 2. As in the case of urban lands, the areas delineated are not necessarily fully developed.

Native Vegetation

Lands which are essentially in a native state and not included in any of the above categories are mapped as native vegetation. Native vegetation totals approximately 1,893,000 acres or 99 percent of the Trinity River Hydrographic Unit. Included in these areas are water surfaces, scattered residences, and other associated uses covering a few acres or less which are too small to be mapped separately. These lands are used to some extent for mining, commercial timber production, livestock range, and recreational activities such as fishing, hunting, hiking and picnicking.

Illustration 14

Housing development
at Lewiston
for Trinity River Project



Illustration 15

Lewiston Dam,
under construction

CHAPTER IV. LAND CLASSIFICATION

Calculations of future water requirements will be based in a large part on a classification of lands with regard to their potential for irrigated agricultural and recreational development. The results of such a land classification survey in the Trinity River Hydrographic Unit are presented in this chapter.

Lands were not classified in this survey with respect to their potential for urban development. The use of lands for urban purposes is closely related to population at any given time, and it is planned to defer designation of these lands until estimates of population and related economic studies are made in connection with determinations of future water requirements.

The former Division of Water Resources made a reconnaissance classification of lands of the State which was reported in State Water Resources Board Bulletin No. 2, "Water Utilization and Requirements of California," dated June 1955. A more detailed land classification survey was performed by the department and reported in Department of Water Resources Bulletin No. 58, and Bulletin No. 83. The entire area of the Trinity River Hydrographic Unit was included in Bulletin No. 83, but only that portion in Trinity County was included in Bulletin No. 58. The present investigation uses the same basic land classification survey which was used in Bulletin Nos. 58 and 83. However, additional data on classification of recreational lands have been included along with some minor modifications to the irrigable agricultural lands and a remapping

of the present urban lands. Because of construction of the Trinity project, the lands within the high-water lines of Trinity and Lewiston Reservoirs have been deleted from the irrigable and urban classifications reported in prior surveys.

Methods and Procedures

The general methods and procedures used in field mapping and tabulation of information were essentially the same as those described for the land use survey in Chapter III. An example of land classification delineations on an aerial photograph is shown on page 104.

The standards used in the classification of lands are given in detail in Table 10.

Table 10
LAND CLASSIFICATION STANDARDS

Land :	
Class:	Characteristics
Symbol:	

Irrigable Lands

- V - These lands are level or slightly sloping and vary from smooth to hummocky or gently undulating relief. The maximum allowable slope is 6 percent for smooth reasonably large-sized bodies lying in the same plane. As the relief increases and becomes more complex, lesser slopes are allowed. The soils have medium to deep effective root zones, are permeable throughout, and free of salinity, alkalinity, rock, or other conditions limiting crop adaptability of the land. These lands are suitable for all climatically adapted crops.
- H - These are lands with greater slope and/or relief than those of the V class. They vary from smooth to moderately rolling or undulating relief. The maximum allowable slope is 20 percent for smooth, reasonably large-sized bodies lying

Table 10 (Continued)

LAND CLASSIFICATION STANDARDS

Land :	
Class:	Characteristics
Symbol:	

in the same plane. As the relief increases and becomes more complex, lesser slopes are allowed. The soils are permeable, with medium to deep effective root zones, and are suitable for the production of all climatically adapted crops. The only limitation is that imposed by topographic conditions,

- M - These are lands with greater slope and/or relief than those of the H class. They vary from smooth to steeply rolling or undulating relief. The maximum allowable slope is 30 percent for smooth, reasonably large-sized bodies lying in the same plane. As the relief increases and becomes more complex, lesser slopes are allowed. The soils are permeable, with medium to deep effective root zones, and are suitable for the production of all climatically adapted crops. The only limitation is that imposed by topographic conditions.

Any variation from the foregoing, as defined, is indicated by use of one or more of the following symbols:

- w - Indicates the presence of a high-water table, which in effect limits the present crop adaptability of these lands to pasture crops. Drainage and a change in irrigation practice would be required to affect the crop adaptability.
- s - Indicates the presence of an excess of soluble salts or exchangeable sodium in slight amounts, which limits the present adaptability of these lands to crops tolerant to such conditions. The presence of salts within the soil generally indicates poor drainage and a medium to high-water table. Reclamation of these lands will involve drainage and the application of small amounts of amendments and some additional water over and above crop requirements in order to leach out the harmful salts.
- ss - Indicates the presence of an excess of soluble salts or exchangeable sodium in sufficient quantity to require the application of moderate amounts of amendments and some additional water over and above crop requirements in order to effect reclamation.
- h - Indicates very heavy textures, which make these lands best suited for production of shallow-rooted crops.

Table 10 (Continued)

LAND CLASSIFICATION STANDARDS

Land :	
Class :	Characteristics
Symbol:	

l - Indicates fairly coarse textures and low moisture-holding capacities, which in general make these lands unsuited for the production of shallow-rooted crops because of the frequency of irrigations required to supply the water needs of such crops.

p - Indicates shallow depth of the effective root zone, which limits use of these lands to shallow-rooted crops.

r - Indicates the presence of rock on the surface or within the plow zone in sufficient quantity to prevent use of the land for cultivated crops.

Urban Lands

- UD - The total area of cities, towns, and small communities presently used for residential, commercial, recreational and industrial purposes.

Recreational Lands

- RR - Existing and potential permanent and summer home tracts within a primarily recreational area. The estimated number of houses, under conditions of full development, is indicated by a number in the symbol, i.e., RR-3 is suitable for three houses per acre.
- RC - Existing and potential commercial areas which occur within a primarily recreational area and which include motels, resorts, hotels, stores, etc.
- RT - Existing and potential camp and trailer sites within a primarily recreational area.
- P - Existing and potential county, state, federal, and private parks, racetracks, and fairgrounds.

Miscellaneous Lands

- N - Includes all lands which fail to meet the requirements of the above classes.

Major Categories of Land Classes

The lands mapped can be grouped into four major categories: (1) irrigable lands, (2) urban lands, (3) recreational lands, and (4) miscellaneous lands, which are those lands which fail to meet the requirements of the first three land class categories.

Results of the land classification survey are shown on Plate 3, "Classification of Lands," Sheets 1 through 31. The totals of areas in each classification are listed in Table 11.

Irrigable Lands

Irrigable lands are grouped in appropriate classifications according to their suitability for development under irrigated agriculture and their crop adaptability. Presently irrigated lands are included within these classifications, but urban lands and recreational lands are not classed as to irrigability. The time element with respect to when the lands might be developed did not enter the determination, except that suitability for irrigated agriculture was necessarily considered in light of present agricultural technology.

There are many factors which influence the suitability of land for irrigation development. Since soil characteristics and the physiography of the landscape are the most stable of these factors, they were the only ones considered in the survey in classifying lands as to their irrigability. The characteristics of the soil were established by examination of road cuts, ditch banks, and the material from test holes, together with observations of the



Example of land classification delineated on aerial photograph

(See Table 11 page 106 for explanation of symbols used)

type and density of native vegetation and crops. Representative slopes throughout the area were measured with a clinometer. Other aspects such as those economic factors related to the production and marketing of climatically adapted crops, the location of lands with respect to a water supply, and climatic conditions were not considered in the basic classification. These latter factors are very important in estimating the nature of future cropping patterns and practices and will be given due consideration when estimates are made of future water requirements.

Urban Lands

It is recognized that future urban expansion will encroach upon some of the irrigable lands. The location and extent of this type of development is a function of many variables. Because this land classification survey is an inventory of relatively unchanging physical conditions, no attempt was made to locate the areas of urban encroachment. Therefore, only those lands devoted to urban uses in 1957 are designated as "urban" lands. The 180 acres of present urban lands in the vicinity of Lewiston, however, are an exception. They have been included in recreational lands because Trinity and Lewiston Reservoirs now under construction make it obvious that their use in the future will be primarily for recreational activities.

Recreational Lands

Present trends indicate an expanding rate of use and demand for recreational facilities throughout the State. In view

TABLE II
CLASSIFICATION OF LANDS IN
TRINITY RIVER HYDROGRAPHIC UNIT
(In acres)

Subunit and county	Irrigable agricultural lands											Present urban lands, 1957	Recreational lands				Total
	Smooth lying					Gently sloping					Steeply sloping		RC	RR	RT		
	V	Vw	Vr	H	Hp	Hr	Sleepy sloping										
							M	Total									
Burnt Ranch Trinity County	0	20	0	860	0	0	0	200	1,080	30	240	490	140	870			
Hayfork Creek Trinity County	50	0	0	550	0	0	0	160	760	0	10	40	30	80			
Hayfork Valley Trinity County	1,600	10	0	4,380	100	0	2,220	8,310	720	10	70	150	230	630			
Helena Trinity County	20	0	0	70	0	0	30	120	220	0	30	60	90	20			
Hoope Humboldt County	1,270	20	150	880	0	0	90	2,410	900	10	0	10	20	260			
Kyaapoo Trinity County	350	0	220	270	0	0	60	900	410	0	210	50	260	0			
Lower South Fork Trinity County	0			240			170	410	10	0	0	40	260	0			
Humboldt County Total	<u>10</u> 10	0	0	<u>160</u> 400	0	0	<u>170</u>	<u>560</u>	10	0	210	40	260	0			
Middle Trinity Trinity County	70	0	20	1,490	0	40	30	1,650	20	70	170	120	360	80			
New River Trinity County	0	0	0	210	0	0	130	340	20	0	30	50	80	8,140			
Trinity Reservoir Trinity County	150	320	190	320	0	0	10	990*	20	320	6,060	1,760	490	20			
Upper South Fork Trinity County	0	0	0	570	0	0	40	610	0	30	190	270	20	20			
Weaver Creek Trinity County	0	0	10	550	0	0	0	560	0	0	0	20	20	20			
Willow Creek Trinity County	0			20				20	0	0	10	10	20	20			
Humboldt County Total	<u>50</u> 50	0	<u>20</u> 20	<u>1,240</u>	0	0	0	<u>1,260</u>	<u>1,260</u>	<u>30</u> 30	<u>160</u>	<u>10</u> 10	<u>200</u>	11,200			
TRINITY COUNTY HUMBOLDT COUNTY TOTAL	<u>2,240</u> <u>1,330</u> 3,570	<u>350</u> <u>20</u> 370	<u>440</u> <u>170</u> 610	<u>9,530</u> <u>2,260</u> 11,790	<u>100</u> <u>0</u> 100	<u>40</u> <u>0</u> 40	<u>3,050</u> <u>90</u> 3,140	<u>15,750</u> <u>3,870</u> 19,620	<u>1,070</u> <u>320</u> 1,420	<u>780</u> <u>30</u> 810	<u>7,640</u> <u>180</u> 7,820	<u>2,780</u> <u>60</u> 2,840	<u>11,200</u> <u>270</u> 11,470	11,470			

*Does not include irrigable agricultural lands within the high-water line of Trinity and Lewis Reservoirs now under construction.



Illustration 17 (left)

Fishing on the Trinity River

Illustration 18 (bottom)

Big Slide Campground,
South Fork Trinity River



of these trends and the ever-increasing population, it is recognized that there will be a demand for substantial land areas for recreational purposes. This is particularly true of the mountainous regions where this type of development is expanding rather rapidly at the present time.

Generally speaking, all mountainous lands are suitable for some recreational use such as hunting, fishing, and similar outdoor activities. However, for purposes of this survey, lands classified for recreational use were limited to those which are now, or may in the future be used intensively for permanent and summer home tracts, camp and trailer sites, and parks outside of urban areas. These are lands requiring intensive water service.

Primary considerations for classification of home tracts and camp and trailer sites were such physical factors as soil depth, slope, and rockiness; such aesthetic values as view, nearness to lakes or streams, or density and type of forest canopy suitable for the respective uses; and the plans of United States and State forest officials. An important factor in location of camp and trailer sites is the availability of a water supply, but isolation from existing roads did not influence site selection.

There are no existing federal and state parks within the Trinity River Hydrographic Unit.

Miscellaneous Lands

Lands which failed to meet the requirements of the previously described irrigable, urban, and recreational classifications amounted to approximately 1,870,000 acres or 98 percent of the area of the unit.

Illustration 19

Logging trucks

near Hyampom



Illustration 20

Hyampom

Valley

CHAPTER V. SUMMARY

The Trinity River Hydrographic Unit comprises the entire watershed of the Trinity River, of which 2,556 square miles are in Trinity County and 413 square miles are in Humboldt County. The unit is predominantly mountainous, varying in elevation from 305 feet above sea level at Weitchpec to 9,025 feet at Mount Eddy. Irrigable agricultural lands constitute only a small part of the total area. Almost 60 percent has been classified as commercial timberland by the United States Forest Service. The forest products industry has been the leading element of the Trinity Basin's economy since World War II.

Water Use

A survey was made of water uses supplied by diversion of surface water during 1957, the object of which was to locate and obtain data with respect to all diversions of more than 10 acre-feet per year. Continuous or periodic measurements were made on approximately 70 percent of the 230 diversions located during the year of survey. The quantities of water diverted by these measured diversions are summarized as follows:

<u>Primary use</u>	<u>Number of diversions located</u>	<u>Number of diversions measured</u>	<u>Measured quantities diverted (acre-feet)</u>
Irrigation	163	139	79,300
Mining	25	16	7,300
Industrial (lumber mills)	15	12	7,200
Domestic	11	4	1,600
Municipal	6	3	2,000
Power	9	8	37,200
Recreation (fish pond)	<u>1</u>	<u>1</u>	<u>1,400</u>
TOTALS	230	183	136,000

Most of these diversions are based on riparian rights and on appropriative rights established prior to enactment of the Water Commission Act of 1914. Generally there are no official records of the riparian water rights. Many of the early appropriative rights are not of record, since such rights could be established prior to 1914 merely by actual diversion and use of water. The basis of water rights for each diversion was determined insofar as possible.

The Water Commission Act, now codified in Divisions 1 and 2 of the Water Code, requires formal applications for the appropriation of water. As of January 15, 1959, a total of 303 currently valid applications had been made under Water Commission Act provisions in the Trinity River Hydrographic Unit.

Permits or licenses had been granted for 277 of these applications, 16 were pending with the State Water Rights Board, and 10 were incomplete as of that date. Permits were granted on September 16, 1959, for eight of the then pending applications which were for diversion and storage at Trinity Dam and Lewiston Dam.

The total consumptive use of applied water during 1957 is estimated to have been 9,100 acre-feet of which 7,400 acre-feet

were used for irrigation, 1,300 acre-feet for domestic and municipal purposes, and 400 acre-feet for industrial purposes in the production of lumber and plywood.

Land Use

A detailed land use survey was conducted in the Trinity River Hydrographic Unit during the spring of 1957. The areas of land devoted to present uses are summarized as follows:

<u>Use</u>	<u>Area, in acres</u>
Agriculture	
Lands irrigated during 1957	3,880
Lands normally irrigated, but idle during 1957	600
Naturally high water table lands	340
Dry-farmed	<u>610</u>
	5,430
Urban	1,600
Recreation	<u>480</u>
Subtotal	7,510
Native vegetation	<u>1,892,690</u>
Total, hydrographic unit	1,900,200

Approximately 30 percent of the irrigated acreage during 1957 was located within the predicted high-water line of Trinity Reservoir, then under construction; 25 percent was in Hayfork Valley, and the remaining 45 percent was in smaller valleys distributed throughout the unit. Figure 1 portrays the land use distribution in the Trinity River watershed.

Land Classification

The land classification survey made for use in Bulletin Nos. 58 and 83 was used in this investigation. However, additional data on classification of recreational lands have been included along with some minor modifications to the irrigable agricultural lands and a remapping of the present urban lands. The results of these surveys are summarized below:

<u>Classification</u>	<u>Area, in acres</u>
Irrigable agricultural lands	19,620
Present urban lands, 1957	1,420
Recreational lands	<u>11,470</u>
Subtotal	32,510
Other lands	<u>1,876,690</u>
Total, hydrographic unit	1,900,200

The irrigable agricultural lands, the present urban lands, and the recreational lands represent 1.0, 0.1, and 0.6 percent, respectively, of the total area of the unit. This distribution is portrayed in Figure 2.

Approximately 43 percent of the irrigable agricultural lands are located in Hayfork Valley and 34 percent in Hoopa, Willow Creek, Burnt Ranch, and Middle Trinity Subunits. Approximately 72 percent of the delineated recreational lands are located in the Trinity Reservoir Subunit. None of the agricultural lands located within the normal high-water line of Trinity and Lewiston Reservoirs has been classified as irrigable, but rather has been included with "miscellaneous lands" which failed to meet the requirements of irrigable, urban, and recreational classifications.

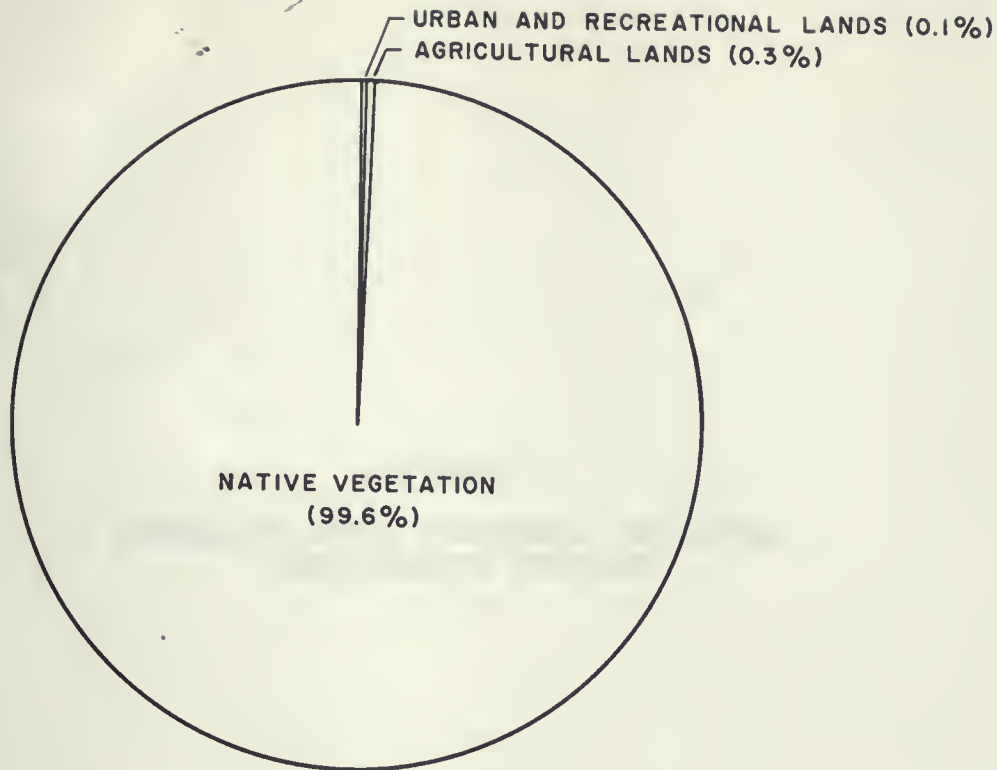


Figure 1
1957 LAND USE

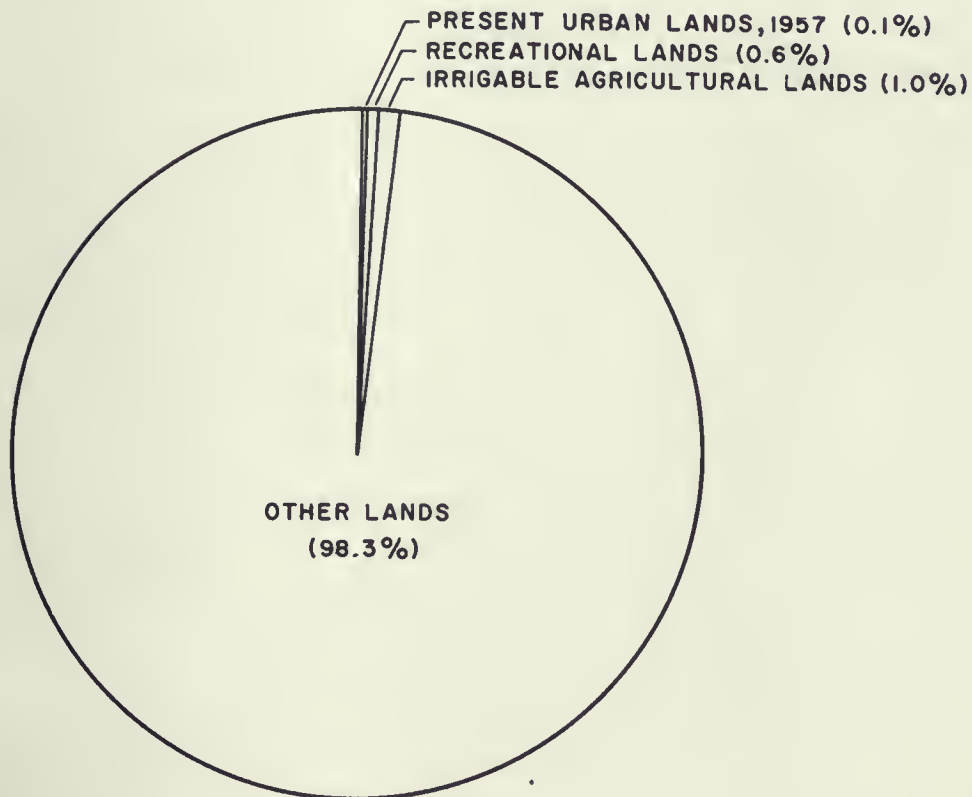


Figure 2
CLASSIFICATION OF LANDS

APPENDIX A

STATEWIDE WATER RESOURCES AND WATER
REQUIREMENTS PROGRAM

APPENDIX A

STATEWIDE WATER RESOURCES AND WATER REQUIREMENTS PROGRAM

California's major water problem today is that of development and delivery of supplemental water supplies to meet increasing water requirements throughout the State. The problem involves (1) the regulation of seasonal and cyclic fluctuation of streamflow to meet demand schedules in the areas of origin, and (2) the transmission of regulated surplus flows over long distances to areas of deficiency. The development and long distance transfer of water is currently accomplished by such major facilities as the Federal Central Valley Project and the Colorado River Aqueduct of The Metropolitan Water District of Southern California. However, such development and transfer will be considerably broadened in scope by the State Water Facilities.

Consumptive water requirements of the State on a basin-wide basis were estimated in State Water Resources Board Bulletin No. 2, "Water Utilization and Requirements of California," June 1955. However, to provide for local water needs while considering specific export projects, more detailed information must be made available on present and projected future water requirements of the areas in which the projects are to be built. This will necessitate the considerably more detailed collection and analysis of data on hydrology, land use and land capability, and economics.

Recognizing that additional information is needed if the water needs of areas of origin are to be adequately protected in large-scale water development projects, the 1956 Legislature

authorized an investigation to determine the water resources and water requirements of the respective watersheds in the State. The authorization is contained in Chapter 61, Statutes of 1956 as amended by Chapter 2025, Statutes of 1959. This legislation is codified in Section 232 of the Water Code as follows:

"232. The Legislature finds and declares that in providing for the full development and utilization of the water resources of this State it is necessary to obtain for consideration by the Legislature and the people, information as to the water which can be made available for exportation from the watersheds in which it originates without depriving those watersheds of water necessary for beneficial uses therein. To this end, the department is authorized and directed to conduct investigations and hearings and to prepare findings therefrom and to report thereon to the Legislature at the earliest possible date with respect to the following matters:

(a) The boundaries of the respective watersheds of the State and the quantities of water originating therein;

(b) The quantities of water reasonably required for ultimate beneficial use in the respective watersheds;

(c) The quantities of water, if any, available for export from the respective watersheds;

(d) The areas which can be served by the water available for export from each watershed; and

(e) The present use of water within each watershed together with the apparent claim of water right attached thereto, excluding individual uses of water involving diversions of small quantities which, in the judgment of the Director of Water Resources, are insufficient in the aggregate to materially affect the quantitative determinations included in the report.

"Before adopting any findings which are reported to the Legislature, the department shall hold public hearings after reasonable notice, at which all interested persons may be heard."

For purposes of this investigation, the State has been divided into twelve major hydrographic areas. These areas, in turn, have been subdivided into hydrographic units generally comprising watersheds of individual rivers. These watersheds will be field surveyed in some detail, and, where previous detailed studies have been made, the information will be brought up to date. Water resources and water requirements will be determined and reported in a bulletin for each of the hydrographic areas. Since it requires many years to gather sufficient data to make adequate analyses of water resources and water requirements, and, in order to make the data on present land and water use available when they are most useful, surveys of land and water use will be made and published separately for each of the hydrographic units. Bulletin No. 94-2, "Land and Water Use in Trinity River Hydrographic Unit," is the second of a series reporting the results of these surveys.

At a future date, estimates, largely based on the land and water use surveys, will be made of quantities of water reasonably required for future beneficial uses in each watershed. The quantity of water potentially available for export from each watershed will be determined after allowances are made for the satisfaction of the local requirements and prior rights to divert water to other areas. For those watersheds in which no exportable water is available the water supply deficiency will be determined. These estimates will be published as they become available, in such form as to make possible a county-by-county determination.

The calculations of future water requirements will be based, in part, on predicted future land uses derived from land

land classification surveys, economic studies, population forecasts industrial and agricultural development, and recreational needs. Agricultural water requirements will be based on unit water use by the various predicted crop types; urban and recreational requirements on per capita water use values; fish and wildlife requirements on minimum streamflow needed or on water demands for wildlife requirements on minimum streamflow needed or water demands for wildlife area; and industrial water requirements on measured water deliveries to various types and sizes of industries now existing. In forecasting future industrial development, water quality problem will be given full consideration.

Water resources will be determined from records of all stream gaging stations, including new stations which were established for this and other investigations of the department. The new stations were generally constructed on streams which originate in the smaller watersheds for which runoff data are necessary but for which no data have been available. As a part of this investigation, four new stream gaging stations were added to the existing network of stations in the Trinity River Hydrographic Unit. These stations were installed:

<u>Stream gaging station</u>	<u>Date installed</u>
Big Creek near Hayfork	February 6, 1957
Browns Creek near Douglas City	January 8, 1957
North Fork Trinity River at Helena	January 24, 1957
Weaver Creek near Douglas City	January 11, 1957

APPENDIX B

REPORTS ON RELATED INVESTIGATIONS
AND OTHER REFERENCES

APPENDIX B

REPORTS ON RELATED INVESTIGATIONS AND OTHER REFERENCES

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APPENDIX C LEGAL CONSIDERATIONS

TABLE OF CONTENTS LEGAL CONSIDERATIONS

	<u>Page</u>
California Water Rights	C-2
Riparian Rights	C-3
Overlying Rights	C-4
Appropriative Rights	C-5
Prescriptive Rights	C-8
Determination of Water Rights	C-9a
Litigation Concerning Local Water Rights	C-9b
Applications to Appropriate Water	C-9b

TABLES

Table No.

C-1	Applications to Appropriate Water in Trinity River Hydrographic Unit . . .	C-10
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APPENDIX C

LEGAL CONSIDERATIONS

There are set forth in the following paragraphs brief general statements with respect to the California law of water rights to supplement and to provide a background for information on water rights contained in Chapter II. Also included is a tabulation of currently active applications to appropriate water within Trinity River Hydrographic Unit filed with the State Water Rights Board.

California Water Rights

In California, water rights convey only the right to use water. Until absolute possession of water is acquired by some artificial means, no one owns water. However, the owner of water rights is entitled to enjoy them without interference by other users who have rights which are inferior to his.

Five kinds of water rights are recognized in California. These are riparian, overlying, appropriative, prescriptive, and pueblo. Riparian rights attach to surface water and water flowing in known and definite subterranean channels, while overlying rights attach only to underground water. Appropriative and prescriptive rights may be acquired in either surface or underground waters. Pueblo rights are now exercised in California only by the cities of Los Angeles and San Diego, each of which has a paramount right to satisfy its full needs from the stream system

of waters flowing by the former Mexican pueblo from which each sprang.

All water rights, both to surface and to underground water, are subject to the doctrine of reasonable beneficial use expressed in Section 3 of Article 14 of the California Constitution, and Water Code Sections 100 and 101. This doctrine limits water rights to the quantity of water reasonably required for beneficial use and prohibits waste, unreasonable use, and unreasonable methods of use or diversion.

Riparian Rights

A riparian right entitles the owner of lands which border or front on a watercourse to take water therefrom for use on such lands within the same watershed. However, the rights of the owner of riparian land are limited to the reasonable beneficial use of the natural flow of water which passes his land. Riparian rights pass with the title to the land, unless expressly reserved or excepted from the interests transferred, and are not gained by use or lost by mere nonuse. Although the land must be contiguous to the watercourse, the length of the frontage is not determinative of the rights; a large tract with a small frontage on a stream, may be riparian to the stream. But the original grant determines the character of the land, and only the smallest contiguous tract held under a single title retains riparian rights.

A riparian owner has no right to any specified amount of the water of a stream as against other riparian owners. He

has rights only to a reasonable share from the stream -- a correlative right which he shares mutually with other riparian owners. In the event of insufficient water for all, the available supply must be apportioned, except that an upper riparian owner may take the whole supply if necessary for domestic use. As against appropriators, the riparian owner has the paramount right to all the water of the stream which he can put to reasonable beneficial use, but that is the extent of his rights, and the appropriator can take the surplus.

Riparian rights do not authorize use of water on non-riparian land, nor do they permit the seasonal storage of water. Neither do they prevent temporary appropriation by others of water not presently needed for use on riparian land.

A parcel of land becomes nonriparian when severed from land bordering the stream, unless the riparian rights are reserved for the severed parcel by the grantor. Riparian rights may be destroyed when purportedly transferred apart from the land by grant, contract, or condemnation, and may be impaired or lost through prescription.

Overlying Rights

Owners of lands overlying a common underground water supply have the right to withdraw water for reasonable beneficial use on their overlying lands. Such overlying rights are analogous to riparian rights, in that both are based on ownership of land, and the rights of each overlying owner are mutual and correlative

to the rights of all other owners. In the case of insufficient water to fully supply the requirements of all, the available supply must be equitably apportioned.

Overlying rights do not include use of water on non-overlying land. However, surplus water not presently required for beneficial use on overlying land, and which may be withdrawn without creating an overdraft on the ground water supply, may be appropriated for use on nonoverlying land. But the overlying rights are paramount and all appropriative rights are subject to the future requirements of overlying land.

Appropriative Rights

An appropriation of water is any taking of water for other than riparian or overlying uses, whether such taking is from the underground by wells or from surface streams by direct diversion or storage. An appropriator, in the legal sense, is one who initially takes water without possessing rights which are based on the ownership of land. As between appropriators, the one first in time is first in right. A prior appropriator may take all the water he needs up to the full amount to which he is entitled before a later appropriator may take any.

Normally, appropriative rights are inferior to riparian rights. An exception to this is the case of an appropriation of water diverted from streams flowing through vacant public lands before the riparian lands were withdrawn from the domain of the United States. The appropriative diversions or the lands they

serve may be either upstream or downstream from the riparian lands. Any water not needed for the reasonable beneficial uses of those having prior rights may properly be appropriated.

No formal or statutory procedure is or ever has been prescribed or required in this state for those who take water by means of wells from underground percolating waters or underground basins. An appropriative right to take surplus water from such sources is acquired by extracting such water from the underground and applying it to beneficial uses.

Provided the development and application to use are completed with reasonable diligence, the priority of the right as against another appropriator related back to the first substantial act toward putting the water to use or to the date of application. Until 1872, water flowing in natural streams was appropriated by taking the water.

Sections 1410 through 1422 of the Civil Code, enacted in 1872, established a permissive procedure for perfecting an appropriation of surface water. Provision was made for posting a notice of appropriation at the proposed point of diversion and recording a copy with the county recorder. If the statutory procedure were followed and the appropriation completed with due diligence, priority related back to the date of posting; otherwise, priority was established only when the water was put to beneficial use.

Since the effective date of the Water Commission Act of 1913, December 19, 1914, appropriation of surface water and

water in subterranean streams flowing in known and definite channels has been by compliance with required statutory procedure. An appropriation of such water now can be made in accordance with the provisions of Part 2, Division 2 of the Water Code (Water Code Sections 1200 to 1801). An application to appropriate unappropriated water must be filed with the State Water Rights Board. If the application is approved, a permit is issued authorizing the appropriation. When the appropriation has been completed, an inspection is made and a license is issued, to the extent of beneficial use, provided the terms and conditions of the permit have been fulfilled. The priority of a permit or license relates back to the date of the application.

A right to appropriate water may be lost either by abandonment or by continuous nonuse. To constitute abandonment, there must be concurrence of act and intent, wherein possession is relinquished with no intent to resume it for a beneficial use. Abandonment is, therefore, always voluntary and factual. In the case of an appropriation initiated prior to 1914, continuous nonuse for a period of five years results in the loss of appropriative water rights. In the case of appropriative rights acquired pursuant to the Water Commission Act or the Water Code, continuous nonuse for a period of only three years may result in loss of such rights.

Where ground water and surface water are interconnected, one acting as a tributary to the other, both are treated as part

of a common supply and users of water from either source are entitled to protection from substantial injury as a result of use by others of water from the other source. Thus, an owner of land riparian to a stream may have his right to the use of water protected against impairment by an appropriator of percolating ground water tributary to the stream and required for the maintenance and support of its flow. Likewise, where water from a stream percolates to a ground water basin or stratum, the owner of land overlying the ground water supply may be protected from an appropriation of water from the stream if this causes a substantial impairment of the ground water supply. As between riparian use of surface water and overlying use of ground water tributary to the stream, a sharing of the available water supply on the basis of reasonable beneficial use should be made.

Prescriptive Rights

It is possible to appropriate surface or ground water which is presently needed by others to satisfy riparian, overlying, or prior appropriative rights. Such appropriations may ripen into prescriptive rights where the use is actual, open and notorious, hostile and adverse to the original owners, continuous and uninterrupted for the statutory period of five years, made under claim of right, and with payment of taxes whenever such have been levied on the water rights. Absence of any of these essentials precludes the acquisition of prescriptive water rights.

Prescription thus requires that where the rightful owner for a period of five years, either knows or should

know of the adverse taking and fails to take any physical or legal steps to interrupt such taking. Irrespective of the needs or demands of the riparian, overlying, or prior appropriative user, an absolute right to only a fixed amount of water may be acquired by prescription. The quantity of such a right is determined by beneficial use. However, present use is the measure of the prescriptive right, and future needs cannot be included.

Riparian rights, overlying rights, appropriative rights, and prescriptive rights may be lost or diminished by prescription. While there is sufficient water flowing in a stream to supply the wants of all parties, the use of the water by anyone does not deprive the others of their water supply and, hence, is not an invasion of their rights. The same principle applies to a downstream diversion of water as against the rights of an upstream riparian landowner or prior appropriator. At times when the safe yield of a ground water basin exceeds the needs of overlying landowners and appropriators, their prior rights are not invaded by a later appropriative taking of water from the underground supply. The later appropriation becomes adverse only when the ground water basin is overdrawn; that is, when the annual draft exceeds the safe annual yield. Although neither an overlying owner nor a prior appropriator may prevent a taking of surplus water, either the owner or the appropriator may institute legal proceedings to safeguard the supply once a surplus ceases to exist, and may enjoin any additional use beyond the point of safe yield. Since

prescriptive rights can only be acquired to nonsurplus water, these rights cannot ordinarily be acquired against the future needs of riparian or overlying owners.

The prior appropriator, lower riparian, or overlying owner may protect his rights for his present needs against an adverse appropriator by actually taking the needed water before the five-year period has run, or by the aid of the courts in the form of a declaratory judgment or injunction within the five-year period.

Determination of Water Rights

Under provisions of the Water Code, actions brought before either state or federal courts which involve determination of rights to the use of water may, at the court's discretion, be referred to the State Water Rights Board. Under provisions of Water Code Section 2000, the court may appoint the board to referee "any or all issues involved in the suit," or under Section 2001, it may limit the reference to "investigations of and report upon any or all physical facts involved." This reference procedure may be followed in suits involving either surface or ground waters, or both.

An alternative procedure for adjudication of rights to the use of water of streams, lakes, and other bodies of water, is available upon petition to the State Water Rights Board, but the method excludes the determination of rights to take water from an underground supply other than from a subterranean stream flowing through known and definite channels. Water Code Sections 2500 to 2900, inclusive, authorize the initiation of such proceedings.

Litigation Concerning Local Water Rights

There has been no major adjudication of water rights in the Trinity River Hydrographic Unit. Consequently, neither the State Water Rights Board nor any of its predecessor agencies has been involved in a court reference, and state watermaster service has not been established.

Applications to Appropriate Water

Applications to appropriate water within the Trinity River Hydrographic Unit, filed with the State since 1914 and active on January 15, 1959, are summarized in Table C-1. For each application relative to a diversion reported in Chapter II the diversion location is included in the table. The status of each application as to the granting of a permit or license is also shown in the table.

TABLE C-1

APPLICATIONS TO APPROPRIATE WATER IN
TRINITY RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of January 15, 1959)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion					Amount	Period of Diversion	Purpose	Stetue ^a
					1/4	1/4	Sec.	Tp.	R.	S. & M.			
197	12/7/15	Chester and Paula S. Flint	--	Rowaki Creek	NE	SW	33	13	8E	H	May 1-Sept 30	Domestic and irrigation, 3.0 acres	L-58
321	4/28/16	Donald Cooksey	--	Lumbies Creek	NW	SW	33	13	8E	H	Apr 1-Oct 30	Domestic and irrigation, 3.0 acres	L-57
378	6/14/16	Lena Randolph	15/8E-29N1	Parley Creek	NW	SW	29	15	8E	N	Jan 1-Dec 31	Domestic and irrigation, 12 acres	L-230
424	8/5/16	Harman Albies	--	Spring tributary to Rail Creek	NW	SE	34	32N	12W	MD	May 1-Oct 30	Irrigation, 0.5 acres	L-71
522	11/20/16	Phillip and Mylde Dulevits	2N/7E-7N1	Butler Creek	NE	SE	7	2N	7E	H	Apr 1-Oct 30	Irrigation, 10 acres	L-559
762	8/18/17	Caro L. and Frances Randolph	--	Tributary to South Fork Trinity River	--	Lot 1	30	29N	12W	MD	Jan 1-Dec 31	Irrigation, 8.0 acres	L-56
1226	3/31/19	Nellie E., Rhee, and Vista McIntosh	--	Bremer Creek	NE	SW	27	7N	5E	H	May 1-Sept 30	Irrigation, 10 acres	L-259
1525	11/15/19	Estate of Donald Graham	--	Bear Wallow Creek	SE	NE	32	1N	7E	N	May 1-Oct 30	Irrigation, 5.0 acres	L-596
1865	6/14/20	Bert A. and Katharine Phillips	--	Sulphur Glade Creek	NE	NW	36	2N	6E	H	May 1-Oct 31	Domestic and irrigation, 20 acres	L-883
2018	9/23/20	Victor A. and Lavella Shore Bradley	--	Spring tributary to South Fork Trinity River	SW	NW	13	5N	5E	H	May 1-Sept 30	Domestic and irrigation, 10 acres	L-301
2155	12/27/20	Aileen McGreadie Nelson	--	Deep Gulch Creek	SW	NW	6	5N	6E	H	May 1-Sept 30	Domestic and irrigation, 6.0 acres	L-357
2907	4/16/21	Elizabeth Frances Randolph	--	Skidmore Spring	SE	SW	18	13	8E	H	Jan 1-Dec 31	Domestic	L-315
2541	9/12/21	Louis J. and Nora M. Karsch	35N/84-10E1	East Fork of Stuart Fork	NW	SE	6	35N	8W	MD	Apr 1-Nov 30	Irrigation, 20 acres	L-583
2705	12/27/21	Estate of C. L. Filigno	--	Newell Gulch	NW	SE	9	6N	5E	H	Jan 1-Dec 31	Domestic and irrigation, 2.75 acres	L-467
2826	4/21/22	H. B. R. Inc.	--	Koon Creek	SW	NE	26	6N	5E	H	May 1-Nov 1	Domestic and irrigation, 18 acres	L-885
2965	8/3/22	William L. and Rosa Morton	6N/5E-18N1 6N/5E-18N1	North Fork Four Mile Creek	SE	NE	18	6N	5E	H	Apr 1-Jul 15	Irrigation, 11 acres	L-974
3089	10/17/22	Harold H. and Carol W. Huggler	--	Glen Creek	NE	NE	24	13	7E	N	Jan 1-Dec 31	Power	L-499
4420	1/15/25	Lewis Crosswhite	--	Pony Bar Creek	SW	NW	28	6N	6E	H	Apr 1-Oct 15	Domestic and irrigation, 6.0 acres	L-2111
4616	6/6/25	Frieda Albies	31N/124-11N1	Hayfork Creek	NW	SW	11	31N	12W	MD	Apr 1-Oct 1	Irrigation, 25 acres	L-966
4880	1/4/26	Donald W. Wooden	--	School House Creek	NW	SE	9	6N	5E	H	May 1-Nov 1	Irrigation, 25 acres	L-2130
4913	2/8/26	Estate of Gilbert Marshall, et al.	8N/4E-13N2	Hostler Creek	SE	NE	13	8N	4E	H	May 1-Oct 1	Irrigation, 28 acres	L-963
5018	5/14/26	Harris W. Dailay	6N/6E-12N1	Panther Creek	SE	SE	12	6N	6E	H	Apr 1-Oct 31	Domestic and irrigation, 100 acres	L-1217
5262	11/8/26	Joseph B. Thomas	--	Barn Gulch	NW	SE	26	33N	9W	MD	Jan 1-Dec 31	Domestic	L-890
5303	12/19/26	Donald and Elizabeth Ranier	35N/94-13N1	Big Mile Creek	SE	SE	13	35N	9W	MD	Jun 1-Nov 1	Domestic and irrigation, 7.0 acres	L-1046

TABLE C-1 (Continued)

APPLICATIONS TO APPROPRIATE WATER IN
TRINITY RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of January 15, 1959)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
5615	7/20/27	Charles S. and Anna Wines	—	McCorey Gulch	SE	SW	8	31N	11W	MD	2.0 cfs	Nov 1-May 1	Mining	L-958
5627	7/30/27	United States Bureau of Reclamation	—	Trinity River	N 1/4 SW	SW	15	34N	8W	MD	1,100 cfs		Power	Pending
5628	7/30/27	United States Bureau of Reclamation	—	Trinity River	N 1/4 SW	SW	15	34N	8W	MD	1,540,000 af		Domestic, flood control, irrigation, navigation, and salinity control	Pending
5766	11/30/27	Grover A. and Emma E. Gates	38/75-141	Little Corral Creek also known as Gates Creek	SW	NE	14	3N	7E	E	0.20 cfs	Jan 1-Dec 31 Apr 1-Nov 1	Domestic Irrigation, 10 acres	L-1181
5810	1/27/28	Dr. Numa P. Dunne and Clair A. Hill	37N/84-241	Buckeye Creek	SW	NE	24	37N	8W	MD	15 cfs	Dec 1-Jul 1	Mining	L-1398
5890	4/25/28	Blonde H. Oubre	29N/124-32F	Silver Creek	SW	SW	32	29N	12W	MD	0.70 cfs	May 1-Aug 31	Irrigation, 35 acres	L-1231
5909	5/14/28	Thomas F. Van Aletyne	2N/75-51L	Butter Creek	SE	SE	5	2N	7E	E	0.21 cfs	Apr 1-Oct 15	Irrigation, 10 acres	L-921
6273	4/23/29	James J. Irving	—	Swanson Creek	NE	NW	29	6N	6E	H	54,000 gpd	Apr 1-Oct 15	Domestic and Irrigation, 7.0 acres	L-2106
6580	3/4/30	R. E. Roberts	6N/52-36H	West Fork Dixie Creek	NW	SW	2	5N	6E	E	1.975 cfs	Jan 1-Dec 31	Domestic Mining	L-1228
6788	9/5/30	Mrs. Charles N. Miller	—	Spring tributary to South Fork Trinity River	NW	NW	19	1S	8E	E	150 gpd	Jul 1-Oct 1	Domestic	L-1519
7137	12/7/31	George W. Nelson	9N/52-14F	Red Cap Creek	SE	SW	14	9N	5E	N	1.0 cfs	Jan 1-Dec 31	Mining	L-1952
7450	12/1/32	Morris R. Ferguson	—	Tributary to Canyon Creek	SW	NE	36	34N	11W	MD	0.10 cfs	Jan 1-Dec 31	Domestic and mining	L-1770
7459	12/9/32	Mrs. Ethel Larsen	—	Spring in Adams Gulch	NE	NE	16	6N	5E	N	0.010 cfs	Jan 1-Dec 31	Domestic	L-1848
7632	7/28/33	James C. Parker	—	Sandy Bar Creek	SE	SW	16	5N	7E	N	0.050 cfs	May 1-Oct 1	Domestic and Irrigation, 1.5 acres	L-2477
7651	8/21/33	Donald and Elisabeth Banier	35N/94-13H	Big Mule Creek	SE	SE	13	35N	9W	MD	0.85 cfs	Jan 1-Dec 31	Power	L-2109
7745	11/9/33	J. W. Wright	—	Spring tributary to Trinity River via Adams Gulch	NE	NE	16	6N	5E	E	300 gpd	Jan 1-Dec 31	Domestic and recreational	L-1745
7902	4/11/34	State of California Department of Natural Resources Division of Forestry	—	Phillips Gulch	NW	NE	36	33N	9W	MD	0.050 cfs	Jan 1-Dec 31	Domestic	L-1780
8055	8/6/34	Ed DeBoun	—	Dry Gulch tributary to South Fork Trinity River via Hayfork Creek	NE	SE	8	31N	11W	MD	8,100 gpd	Jan 1-Dec 31	Domestic	L-2244
8064	8/13/34	Helen W. Barnum	—	Spring Creek	SE	NW	9	6N	5E	E	7,600 gpd	Jan 1-Dec 31	Domestic and recreational	L-2554
8105	9/17/34	John C. and Lorena D. Tipton	—	Palletreau Creek tributary to Trinity River	NE	SW	21	5N	7E	E	1,400 gpd	Jan 1-Dec 31	Domestic	L-2913
8157	11/17/34	Bronson Brizard	—	Spring tributary to Trinity River via Hawkins Creek	NE	SW	21	6R	6E	H	5,000 gpd	Jan 1-Dec 31	Domestic	L-1739
8301	12/31/34	Charles S. and Anna Wines	—	McCorey Gulch	NE	NW	17	31N	11W	MD	0.15 cfs	Jan 1-Dec 31	Domestic and Irrigation, 6.0 acres	L-2055
8326	4/27/35	United States Shasta-Trinity National Forest	—	Brush Creek	SE	SE	6	36S	7W	MD	8,000 gpd	Jan 1-Dec 31	Domestic	L-2346

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TABLE C-1 (Continued)

APPLICATIONS TO APPROPRIATE WATER IN
TRINITY RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of January 15, 1959)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion					Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	S. & M.			
8344	5/25/35	United States Six Rivers National Forest	—	Boise Creek	SW	SW	30	7N	5E	H	May 1-Oct 31	Recreational	L-2311
8363	6/19/35	Lynbeth R. Atherley	—	Stone Heart Spring	NW	SW	25	3N	6E	N	Jan 1-Dec 31	Domestic and mining	L-2422
8449	9/19/35	Robert E. Delaney	35N/94-28N1	Snow Slide Gulch	NE	SW	28	35N	9W	MD	May 1-Oct 31	Domestic	L-2273
8739	7/22/36	Harry B. and Cleo B. Seymour	—	Spring Gulch	NE	NE	12	37N	8W	MD	Jan 1-Dec 31	Domestic	L-2392
8781	9/1/36	United States Shasta-Trinity National Forest	—	Tributary to New River via Panther Creek	SW	NW	18	6N	7E	H	May 1-Oct 31	Recreational	L-2312
8782	9/1/36	United States Shasta-Trinity National Forest	—	Dry Gulch Creek	SW	NE	5	6N	7E	H	May 1-Oct 31	Recreational	L-2313
8783	9/1/36	United States Shasta-Trinity National Forest	—	Dry Gulch Creek	SW	NE	5	6N	7E	H	Jan 1-Dec 31	Domestic	L-2392
8822	10/30/36	United States Six Rivers National Forest	—	White House Gulch and springs	NW	SW	13	6N	5E	H	Jan 1-Dec 31	Domestic	L-2156
8835	11/24/36	United States Shasta-Trinity National Forest	—	Mansanita Creek	NW	SW	33	34N	12W	MD	Jan 1-Dec 31	Domestic	L-2157
8904	2/4/37	George M. and Frances N. Prindle	—	White House Gulch	NW	SW	13	6N	5E	N	Jan 1-Dec 31	Domestic	L-2328
8958	5/3/37	Chauncey L. Ammon	—	Garden Creek	NW	SW	24	6N	5E	H	Jan 1-Dec 31	Domestic	L-2337
8972	5/14/37	Howard H. Long and William J. Green	—	Strope Creek	SW	NE	17	35N	8W	MD	Jan 1-Dec 31 Dec 1-Jul 15	Domestic Mining	L-2278
8983	5/28/37	Miriam M. Snow	37N/84-11C1	Little Boulder Creek	SE	NW	11	37N	8W	MD	Jan 1-Dec 31 Jun 1-Sept 30	Domestic Irrigation, 1.0 acre	L-2523
9008	7/14/37	John Q. and Anna E. Terry	34N/11W-31A1	Logan Gulch Creek	NE	SE	31	34N	11W	MD	Jan 1-Dec 31	Domestic and power	L-2342
9108	9/8/37	United States Six Rivers National Forest	—	Tributary to Trinity River	NE	SE	6	7N	5E	H	Jan 1-Dec 31	Domestic	L-2170
9143	10/11/37	United States Shasta-Trinity National Forest	—	Spring tributary to Coffee Creek	NW	SW	33	36N	8W	MD	Apr 1-Dec 1	Domestic and recreational	L-2334
9172	11/6/37	United States Six Rivers National Forest	—	Gray's Creek	SE	SW	28	6N	6E	N	Jan 1-Dec 31	Domestic	L-2158
9173	11/8/37	Mr. and Mrs. Gene Greenleaf	3N/6E-25E1	Hayfork Creek	NE	NE	25	3N	6E	H	May 1-Sept 30	Irrigation, 25 acres	L-2350
9188	11/24/37	Ralph Gorsuch and George Schneider	37N/74-19N1	Buckeye Creek	NW	SW	19	37N	7W	MD	Jan 1-Dec 31	Domestic and mining	P-5196
9196	12/1/37	Frank Costa, et al.	34W/94-16C1	Rush Creek	NW	SE	16	34N	9W	MD	Dec 1-Jul 1	Mining	L-2259
9229	1/31/38	Frank Costa, et al.	34W/94-16C1	Rush Creek	NE	NW	16	34N	9W	MD	Dec 1-Jul 1	Mining	L-2260
9231	2/4/38	Mrs. E. Stewart	—	Price Gulch	SE	SW	28	34N	11W	MD	Jan 1-Dec 31 Feb 1-Apr 30	Domestic Mining	L-2522
9254	3/12/38	Donald Menden	6W/5E-9E1	School House Creek	NE	SE	9	6W	5E	N	Jan 1-Dec 31 May 1-Nov 1	Domestic Irrigation, 28 acres	L-2442
9319	6/13/38	Samuel R. Wetmore	—	Dobbins Gulch	NW	NE	12	30W	12W	MD	Apr 1-Sept 1	Irrigation, 5.0 acres	L-2418

TABLE C-1 (Continued)

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TRINITY RIVER HYDROGRAPHIC UNIT

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					1/4	1/4	Sec.	Tp.	R.	B. & M.				
9477	12/21/38	George J. and Ruth Euryce	—	Spring tributary to Salt Creek	SW	SE	1	30N	12W	MD	200 gpd	Jan 1-Dec 31	Domestic	L-2419
9632	6/22/39	Earl P. Chapman	33W/11N-25AL	Soldier Creek	SE	NE	25	33N	11W	MD	3.0 cfs 0.35 cfs	Dec 1-Jul 1 Jan 1-Dec 31 May 1-Sept 30	Mining Domestic Irrigation	L-2619
9660	7/11/39	Vera V. Wright	—	Bridge Creek	NW	SW	15	6N	5E	H	6,800 gpd	Jan 1-Dec 31	Domestic	L-2653
9661	7/12/39	Claude A. Shriner, et al.	—	Chesbro Gulch	NE	SW	10	5N	6E	H	30,000 gpd	Apr 1-Oct 31	Domestic and Irrigation, 9 acres	P-5403
9769	11/20/39	Clarence C. and Emma Alice Chandler	—	Spring tributary to East Fork of North Fork Trinity River	NE	NE	20	34N	11W	MD	7,000 gpd	Jan 1-Dec 31	Domestic and Irrigation, 2.5 acres	L-2786
9971	8/7/40	Paul A. and Gladys M. Snyder	—	Kirkham Creek	SE	NW	17	7N	5E	H	1,500 gpd	Jan 1-Dec 31	Domestic	L-3272
10008	9/18/40	Carl M. and Irene A. Rimbey	—	Tributary to Trinity River	SW	NW	23	5N	6E	H	0.16 cfs	May 1-Oct 30	Domestic and Irrigation	L-2975
10073	11/25/40	Archib and Eloise Mulvany	—	Collins Creek	NW	NW	29	1S	8E	H	200 gpd	Jan 1-Dec 31	Domestic	L-2824
10149	3/19/41	D. M. McCrea	—	Indian Rancheria Creek	SE	SE	32	7N	7E	H	1,000 gpd	Jan 1-Dec 31	Domestic	L-2777
10283	9/15/41	Wilbur R. and Mary C. Brown	—	Spring within Trinity River Watershed	SW	SE	14	6N	5E	H	1,000 gpd	Jan 1-Dec 31	Domestic	L-3047
10319	11/17/41	Joseph Helfenstein	15/7E-50L	Joe Frasier Creek	NE	NW	5	1S	7E	N	1.0 cfs	Jan 1-Dec 31	Domestic, Irrigation, mining, power, and stockwatering	L-3049
10326	11/24/41	John Detret	28N/12N-62L	Friety Creek	SE	NE	6	28N	12W	MD	0.80 cfs	Jan 1-Dec 31	Domestic and power	L-3634
10366	1/19/42	George L. Costa	38N/6N-14B1	Crow Creek	SW	NE	14	38N	6W	MD	0.50 cfs	Jan 1-Dec 31	Domestic and mining	L-2759
10375	1/23/42	State of California Division of Highways	—	Brinard Creek	NW	SW	14	5N	6E	H	15,000 gpd	Jan 1-Dec 31	Domestic and Industrial	L-2878
10395	3/5/42	L. A. Smith and B. C. Austin	38N/6N-14B1	Spring tributary to Doe Creek thence Nunbo Creek	NW	SW	15	38N	6W	MD	9,000 gpd	Jan 1-Dec 31	Domestic and mining	L-3142
10597	7/16/42	United States Shasta-Trinity National Forest	—	Tributary to Trinity River	NE	SW	25	5N	7E	H	1,250 gpd	Jan 1-Dec 31	Domestic and recreational	L-3188
10598	7/16/42	United States Shasta-Trinity National Forest	—	McKinney Gulch	SW	NW	12	33N	11W	MD	10,300 gpd	Jan 1-Dec 31	Domestic and fire protection	L-3930
10599	7/16/42	United States Shasta-Trinity National Forest	—	Kyle Gulch Spring	SW	SW	18	31N	11W	MD	10,300 gpd	Jan 1-Dec 31	Domestic and stockwatering	L-2789
10512	7/16/42	United States Shasta-Trinity National Forest	—	Fox Gulch	NE	SW	7	30N	9W	MD	5,200 gpd Not to exceed 1.5 af	May 1-Sept 30	Recreational	L-3048
10526	8/17/42	Patricia Nichols	—	Price Creek	SW	SW	5	33N	12W	MD	23 cfs	Jan 1-Dec 31 Dec 1-Jun 1	Domestic Mining	L-3040
10684	7/26/43	United States Shasta-Trinity National Forest	—	Spring tributary to Kerlin Creek	NW	SW	22	3N	6E	H	2,500 gpd	May 1-Oct 31	Domestic	L-3075
10685	7/26/43	United States Six Rivers National Forest	—	Spring tributary to Trinity River	SE	SW	15	6N	5E	H	750 gpd	Jan 1-Dec 31	Domestic	L-2987
10686	7/26/43	United States Shasta-Trinity National Forest	—	Spring tributary to Trinity River	NW	NW	2	33N	12W	MD	1,000 gpd	Apr 1-Dec 31	Domestic	L-3319

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					1/4	1/4	Sec.	Tp.	R.	S. & M.		
10693	8/9/43	Emilie Shepley and William and Lilley Williams	32N/84-5041	North Fork Indian Creek	NW	SW	30	32N	84	MD	3.0 cfs 0.23 cfs 4,500 gpd	L-4116 L-4203
10704	8/24/43	Jack H. Shaw, Sr.	5N/88-3001	Falletreau Creek	NW	NW	30	5N	88	H	Domestic	L-2783
10705	9/1/43	Archie W. Mulveny	—	Collins Creek	NW	NW	29	13	88	H	Domestic	L-3185
10738	12/10/43	Violet Warren	—	Spring tributary to New River	NW	NW	26	7N	78	H	Domestic and irrigation	L-3320
10740	12/22/43	Enoch B. Day	—	Devile Canyon Creek	NW	SE	26	7N	78	H	Domestic and power	L-3195
10749	1/6/44	Wilfred M. Dunlap	—	Spring and stream tributary to New River	SE	SW	23	7N	78	H	Domestic	L-2882
10777	3/1/44	Mrs. F. G. Sprague	—	Spring tributary to Trinity River	SW	SW	11	6N	58	H	Domestic, industrial, and power	L-4625
10791	3/24/44	Covington Lumber Company	35N/84-411	East Fork of Stuart Fork	NE	SW	4	35N	84	MD	3.0 cfs	P-6362
10816	5/24/44	Salter Heights Water Supply, Inc.	—	Huckleberry Creek	NW	NE	11	6N	58	H	Domestic and irrigation, 3.0 acres	L-3707
10860	8/9/44	George M. or Frances M. Prindle	—	Spring tributary to Trinity River	—	SW	13	6N	58	H	Domestic	L-3204
10863	8/15/44	Mrs. Carl Strong	—	Grays Creek	NE	NW	33	6N	68	H	Domestic	L-3334
10880	9/18/44	Hermie W. Dalley	6H/68-1241	Panther Creek	SE	SE	12	6N	68	H	Domestic and power	L-3205
10920	11/22/44	Joseph J. Spears	35N/104-1941	Murphy Gulch	NW	NE	30	35N	104	MD	Domestic and fire protection	L-3286
10926	11/28/44	Emerald E. Davis	—	Spring tributary to New River	NE	NW	18	6N	78	H	Domestic	L-2981
10931	12/13/44	Josephine Benneck	—	Spring tributary to Trinity River	SW	NW	15	6H	58	H	Domestic	L-3479
10943	1/3/45	William B. Wright	33N/94-1211	Rush Creek	NW	SW	12	33N	94	MD	Domestic and power	P-6432
11088	6/28/45	United States Six Rivers National Forest	—	Spring tributary to Trinity River	NW	SW	34	6N	68	H	Recreational	L-3702
11122	7/27/45	Hensinger Brothers	38N/94-3511	Battle Creek	SE	NW	2	37N	94	MD	Domestic	L-3337
11132	8/21/45	Rolf and Katherine Kozel	—	Spring tributary to Coffee Creek	SW	NE	32	38N	84	MD	Domestic	L-3406
11134	8/22/45	James W. and Vivian F. Williams	—	Mining tunnel tributary to Trinity River	NE	SW	13	6H	58	H	Domestic	L-3237
11181	10/11/45	Edward J. and Ruth E. Russell	34N/114-2641	Tributary to Trinity River	NE	SE	27	34N	114	MD	Domestic and stockwatering	P-6511
11225	11/20/45	Ralph and Gertrude Patton	—	Tributary to Trinity River	NW	SW	26	31N	114	MD	Domestic and recreational	L-3313
11226	11/21/45	G. O. and Myrtle Pullerton	—	Spring tributary to Salt Creek	SW	SW	31	31N	114	MD	Domestic	
11226	11/21/45	G. O. and Myrtle Pullerton	—	Ripstein Gulch	NW	NW	20	33N	104	MD	Domestic	
11273	2/4/46	William R. Foreman	—	Hudson Creek	NW	SW	3	6N	58	H	Domestic	

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11286	2/20/46	Lena Randolph	15/82-2901	Farley Creek	NW	SW	29	15	8E	H	Jan 1-Dec 31 Apr 1-May 1	Domestic Irrigation, 25 acres	L-3347
11295	2/23/46	Caroline E. Henderson	—	Spring tributary to South Fork Trinity River	SW	SE	23	6N	5E	H	Jan 1-Dec 31	Domestic	P-6527
11403	5/22/46	Mary E. and R. C. Solheim	—	Spring tributary to Trinity River	NW	SW	17	7N	5E	N	Jan 1-Dec 31	Domestic	L-3740
11407	5/24/46	Mrs. Lena Randolph	15/82-2901	Farley Creek	NW	SW	29	15	8E	H	Jan 1-Dec 31	Power	L-3487
11419	6/16/46	Edward P. Sullivan	—	Joseph Gulch	SW	NE	30	32N	8W	MD	Jan 1-Dec 31	Domestic	L-4353
11421	6/7/46	Canyon Creek Enterprises	35N/10W-2901	Little East Fork of Canyon Creek	NW	NW	29	35N	10W	MD	Dec 1-Jul 31	Domestic and mining	L-4809
11439	6/17/46	Holt and Katherine Kozel	38N/9W-3211	Coffee Creek	SE	NW	32	38N	8W	MD	Jan 1-Dec 31 Mar 1-Nov 1	Stockwatering Irrigation, 6.0 acres	L-4604
11441	6/18/46	Carl W. and Gerene Fleher	—	Spring tributary to Trinity River	NE	SW	11	6N	5E	H	Jan 1-Dec 31	Domestic	L-3891
11444	6/20/46	James P. and Phyllis Snow	—	Spring tributary to Trinity River	SW	SW	34	7N	5E	H	Jan 1-Dec 31	Domestic	L-3920
11489	7/30/46	Carl Z. Howard	—	Tributary to East Fork of North Fork Trinity River	SE	SE	5	34N	11W	MD	Jan 1-Dec 31 Apr 1-Oct 31	Domestic and fire protection Irrigation, 1.5 acres	L-3949
11504	8/9/46	James R. Wood	32N/11W-1971	Shulte Creek	NW	NE	30	32N	11W	MD	Jan 1-Dec 31 Nov 1-Jul 1	Domestic Mining	L-3457
11537	9/16/46	Silas E. and Betty I. Young	—	Spring tributary to Trinity River	SW	NW	34	7N	5E	N	Jan 1-Dec 31 Apr 1-Oct 31	Domestic Irrigation, 3.0 acres	L-3443
11543	9/10/46	Roland and Marie Oswald	—	Spring tributary to East Fork North Fork Trinity River	NW	NW	21	34N	11W	MD	Jan 1-Dec 31	Domestic	L-3227
11552	9/16/46	Steininda Pritchard	—	Spring tributary to Bush Creek	NE	NW	26	34N	9W	MD	Jan 1-Dec 31	Domestic	L-3229
11597	10/28/46	Harvey F. Fisher	34N/11W-181	Fisher Gulch Creek	NE	NE	1	34N	11W	MD	Dec 1-Jul 1	Mining	L-4285
11657	12/12/46	H. Lloyd Lowden	—	North Fork Little Grass Valley Creek	N ¹ / ₂	SE	14	32N	8W	MD	Jan 1-Dec 31 Apr 1-Nov 1	Domestic and stockwatering Irrigation, 2.5 acres	L-3462
11670	12/23/46	Estate of Otto Wolf	—	Cemetery Creek	NE	SW	5	33N	12W	MD	Jan 1-Dec 31	Domestic and fire protection	L-3964
11696	1/16/47	Claude S. Gribble	—	White House Gulch	SW	SW	13	6N	5E	H	Jan 1-Dec 31	Domestic	L-3694
11700	1/22/47	Pacific Gas and Electric Co.	—	Little Battlemake Creek	SE	SW	17	1S	8E	H	Jan 1-Dec 31 May 1-Sept 1	Domestic and stockwatering Irrigation, 2.5 acres	L-3434
11704	1/23/47	Age D. Walsh	—	Price Creek	SW	SW	5	33N	12W	MD	Jan 1-May 31	Mining	L-3488
11890	5/22/47	Walter J. and Sherrilyn B. Shocker	—	Tributary to South Fork of Trinity River	SE	NE	35	6N	5E	H	Jan 1-Dec 31	Domestic and irrigation, 5.0 acres	P-7165
11927	6/19/47	Hora M. Kersch	35N/8W-1021	East Fork of Stuart Fork Trinity River	NW	SE	6	35N	8W	MD	Apr 15-Nov 15 May 1-Oct 15	Stockwatering Irrigation, 14.1 acres	L-3513
11959	6/12/47	Thomas W. and Wilda R. Golp	—	Spring tributary to Trinity River	NW	SW	29	34N	11W	MD	Apr 1-Oct 15	Domestic	L-3501
11942	6/16/47	Paul A. and Gladys M. Snyder	—	Kirkham Creek	NE	NW	17	7N	5E	H	Jan 1-Dec 31	Domestic	L-4267
11984	7/14/47	Louie E. Van Ness	—	North East Branch of Scott Mountain Creek	NW	NE	5	39N	7W	MD	May 1-Oct 31	Domestic and mining	L-3436

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TABLE C-1 (Continued)
APPLICATIONS TO APPROPRIATE WATER IN
TRINITY RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of January 15, 1959)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	S. & M.				
12013	7/30/47	S. F. and Norma Burre	—	Trinity River	SE	NE	4	6N	5E	N	32,500 gpd	June 1-Sept 15	Fire protection and irrigation, 3.0 acres	L-3763
12022	8/4/47	George J. LaFaver and Earl C. Maddock	—	Dry Gulch Creek	SW	NE	5	6N	7E	H	4,320 gpd	Jan 1-Dec 31	Domestic	L-3774
12031	8/11/47	Doris I. Martin	—	Martin's Spring	NE	SW	15	6N	5E	H	5,000 gpd	Jan 1-Dec 31	Domestic	L-3518
1203	9/23/47	B. V. Hunn	—	Spring tributary to Trinity River	NE	SE	10	5N	6E	H	1,000 gpd	Jan 1-Dec 31	Domestic	L-4605
12147	11/3/47	Arthur C. and Margaret B. Hillman	—	Spring tributary to East Fork of North Fork Trinity River	SW	SE	32	35N	11W	MD	0.05 cfs	Jan 1-Dec 31	Domestic and fire protection	L-4222
12248	1/19/48	Lloyd L. Karrer	—	Tributary to Trinity River	SE	NE	27	33N	7W	MD	3.0 cfs	Jan 1-Dec 31	Mining	L-3962
12311	2/9/48	David E. Montgomery	34N/11W-16H	Fox Gulch	SE	SE	9	34N	11W	MD	3.0 cfs	Dec 1-May 1	Mining	L-4703
12435	3/24/48	Jack D. and Betty B. Swanner	—	Tributary to Hayfork Creek	SE	SE	29	3N	8E	H	6,300 gpd	May 1-Oct 15	Domestic and fire protection	L-4019
12592	7/12/48	United States Shasta-Trinity National Forest	—	Klincy Camp Spring	NE	NW	4	34N	9W	MD	100 gpd	Jun 1-Oct 30	Domestic	L-4573
12661	8/24/48	John D. Jurin, Jr.	—	Hennessey Creek	SE	SE	12	5N	5E	H	5,000 gpd	Jan 1-Dec 31	Domestic	R-7506
12701	9/20/48	Jobs W. Martin	—	Springs tributary to Trinity River	SE	NE	32	34N	8W	MD	3,000 gpd	Jan 1-Dec 31	Domestic	L-4090
12874	12/23/48	James E. Brannan, et al.	—	Spring tributary to Trinity River	NE	SE	10	5N	6E	H	8,100 gpd	Jan 1-Dec 31	Domestic	L-4233
12876	12/23/48	Canyon Creek Enterprises	35W/10W-25D	Little East Fork of Canyon Creek	NW	NW	29	35N	10W	MD	1,400 gpd	Jul 31-Dec 1	Domestic	L-4810
12985	3/16/49	Della E. Stone and Estate of C. W. Stone	—	Pelletrean Creek	NW	NW	30	5N	8E	H	4,100 gpd	Jan 1-Dec 31	Domestic	L-4925
12991	3/23/49	Claude A. and Roberta Shriner	—	Spring tributary to Trinity River	NE	SE	10	5N	6E	H	0.0125 cfs	Jan 1-Dec 31	Domestic	R-7726
13120	5/27/49	United States Bureau of Reclamation	—	Tributary to Trinity River	NE	NE	16	34N	8W	MD	6,500 gpd	Jan 1-Dec 31	Fish Culture	L-3768
13153	6/14/49	Clarence T. and Clifford E. Knight	—	Tributary to Trinity River	SE	SW	8	7N	5E	H	7,600 gpd	Jan 1-Dec 31	Domestic	L-3808
13198	6/30/49	United States Shasta-Trinity National Forest	—	Spring tributary to East Fork Trinity River	NE	SE	26	36N	8W	MD	720 gpd	Apr 1-Nov 30	Recreational	R-8051
13199	6/30/49	United States Shasta-Trinity National Forest	—	Spring tributary to Trinity River Watershed	SW	NW	26	36N	7W	MD	270 gpd	Apr 1-Oct 31	Domestic	L-3624
13206	7/15/49	Richard R. and Robert M. Kennedy	33W/12W-5H	Price Creek	SW	SW	5	33N	12W	MD	0.41 cfs	Jun 1-Dec 31	Domestic	R-8057
13324	9/1/49	Mary E. Henning and M. E. and J. J. Bashore	—	Little Boulder Creek	NW	NW	11	37N	8W	MD	0.167 cfs	May 1-Oct 15	Domestic Irrigation, 20 acres	L-4755
13482	11/23/49	Samuel and Daphelia Gibson	—	Tributary to South Fork Trinity River	SW	SE	18	15	8E	H	150 gpd	Mar 1-Dec 1	Domestic and irrigation, 10 acres	L-4345
13537	1/11/50	Margaret L. Goodrick and Dorothy F. Pettit	—	Moore Gulch	NW	SW	18	35N	7W	MD	1,000 gpd	May 1-Jun 15	Domestic and fire protection	L-4726
13547	1/24/50	United States Six Rivers National Forest	—	Spring tributary to School House Creek	SE	NE	9	6N	5E	H	650 gpd	Apr 1-Oct 31	Domestic	L-5364

TABLE C-1 (Continued)

APPLICATIONS TO APPROPRIATE WATER IN
TRINITY RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of January 15, 1959)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion					Amount	Period of Diversion	Purpose	Stake*
					1/4	1/4	Sec.	Tp.	R.	S. & M.			
13757	5/24/50	Thelma Chapman	—	Smith Creek	SE	SE	10	6N	4E	H	Jan 1-Dec 31	Domestic	L-3861
13776	6/9/50	Alfred Daggett	—	Spring tributary to South Fork Trinity River	NW	SW	18	1S	8E	H	Jan 1-Dec 31	Domestic	L-3854
13808	6/22/50	Raymond and Katherine Smith	—	Pelletreau Creek	NW	NW	30	5N	8E	H	Jan 1-Dec 31	Domestic	P-8327
13809	6/22/50	M. E. Harris, et al.	—	Pelletreau Creek	NW	NW	30	5N	8E	H	Jan 1-Dec 31	Domestic	P-8328
13895	8/14/50	John C. Whipple	37N/64-30Q1	China Creek	SW	SE	30	37N	6W	MD	Jan 1-Dec 31	Power	L-4487
13935	9/5/50	Lee J. and Frances Roth	—	Caraway Creek	NE	SE	14	7N	7E	H	Jan 1-Dec 31	Domestic and irrigation, 11 acres	P-8469
13946	9/11/50	Mary Day	—	Cedar Flat Creek	SE	SW	19	5N	7E	H	Jan 1-Dec 31	Domestic	L-3872
14012	10/23/50	C. H. Soren	—	Trinity River	NW	SE	17	7N	5E	H	May 1-Oct 15	Domestic	L-4493
14063	11/20/50	Roddiercraft Inc.	—	Boulder Creek	NE	SE	6	4N	5E	H	Jan 1-Dec 31	Fire protection and industrial	L-4858
14087	12/4/50	J. Warren Wright	—	Spring tributary to Trinity River Watershed	NE	NE	16	6N	5E	H	Jan 1-Dec 31	Domestic	L-4624
14130	3/14/51	Antonio C. and Ida Chera	—	Trinity River underflow	NW	NE	20	7N	5E	H	Jan 1-Dec 31 May 1-Sept 30	Domestic Irrigation, 0.75 acre	L-4132
14199	3/14/51	Ralph or Rose Hornbrook	—	Trinity River underflow	NW	NE	20	7N	5E	H	May 1-Sept 30	Domestic Irrigation, 1 acre	L-4145
14213	3/23/51	Wesley E. or Daisy D. Hotelling	—	Trinity River underflow	NW	NE	20	7N	5E	H	Jan 1-Dec 31 May 1-Sept 30	Domestic Irrigation, 2.25 acres	L-4750
14276	4/30/51	Glen R. and Carol Councilman	—	Spring tributary to Trinity River	SW	NW	13	6N	5E	H	Jan 1-Dec 31	Domestic	P-8693
14345	6/13/51	Ralph L. Smith Lumber Company	29N/11W-11N2 29N/11W-11H1	Hayfork Creek Spring tributary to Hayfork Creek Hayfork Creek	SW NE SE	SE SE SE	11 11 11	29N 29N 29N	11W 11W 11W	MD MD MD	Jan 1-Dec 31 Jan 1-Dec 31 Dec 15-Mar 15	Domestic, fire protection, and industrial	P-8972
14348	6/18/51	Emil O. Lowder	—	Spring within Trinity River Watershed	SW	SE	29	6N	6E	H	Jan 1-Dec 31	Domestic	L-5087
14404	7/24/51	Salzer Heights Water Supply, Inc.	—	North Huckleberry Creek	NW NE SW	SE SW SW	11 2 2	6N 6N 6N	5E 5E 5E	N H H	May 1-Sept 30	Domestic and irrigation, 87.5 acres	P-8923
14504	10/1/51	Lester and Bulah Beel	—	Tributary to Trinity River	NE	NW	34	34N	11W	MD	Jun 1-Dec 31	Domestic	L-4805
14597	10/2/51	William and Pays Gibson	—	Spring tributary to Bush Creek	NE	NW	12	33N	9W	MD	Jan 1-Dec 31	Domestic	P-8886
14590	11/30/51	Earl M. and May A. DeLacey	—	Duncan Creek tributary to Carr Creek	SE	SE	2	31N	11W	MD	Mar 1-Nov 30 Jan 1-Jun 30	Irrigation, 75 acres	P-9167
14593	12/6/51	Anne Dunlap	—	Dunlap's spring tributary to New River	SE	SW	5	6N	7E	H	Jan 1-Dec 31	Domestic	L-5019
14615	1/7/52	Finley McIntosh	—	Tributary to Trinity River	SW	NW	11	5N	6E	H	Jan 1-Dec 31	Domestic	L-4773
14659	1/29/52	Raymond A. Nechard	—	Springs tributary to Trinity River	NE	SE	29	6N	6E	H	Jan 1-Dec 31	Domestic	L-4328
14654	3/4/52	R. L. and M. A. Augustine	3N/6S-24E1	Queen Creek	SE	SE	24	3N	6E	H	Jan 1-Dec 31 May 1-Sept 1	Domestic and stockwatering Irrigation, 26 acres	L-4760

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TABLE C-1 (Continued)

APPLICATIONS TO APPROPRIATE WATER IN

TRINITY RIVER HYDROGRAPHIC UNIT

(Filed with State Water Rights Board as of January 15, 1959)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	S. B. M.				
14706	3/10/52	Venton and Marian Siek	—	Trinity River	SE	SE	28	7N	5E	N	3,100 gpd	Jun 1-Oct 31	Irrigation, 2.0 acres	L-4757
14732	3/26/52	State of California Division of Highways	—	Brainard Creek	NW	NW	14	5N	6E	E	2,000 gpd	Jan 1-Dec 31 Apr 15-Sept 30	Domestic Irrigation	L-4525
14737	4/7/52	Jean S. and Kent M. Weaver	37N/84-11B1	Coffee Creek	SW	NE	11	37N	8W	MD	0.40 cfe	Apr 1-Nov 30	Domestic, stockwatering, and irrigation, 25 acres	L-4174
14783	4/29/52	Trinity County Water Works District No. 1	31N/114-7H1	Big Creek	SE	NE	7	31N	11W	MD	2.0 cfs	Jan 1-Dec 31	Municipal	P-9402
14799	5/8/52	Stanley Pope	—	Trinity River	NW	SE	17	7N	5E	H	1,000 gpd	May 15-Sept 15	Domestic	L-4529
14825	5/26/52	Silas E. and Betty I. Young	—	Spring tributary to Trinity River	SW	NW	34	7N	5E	R	5,800 gpd	Apr 1-Oct 31	Irrigation, 3.0 acres	L-4530
14845	6/10/52	Irene L. Edwards	—	Spring tributary to Treloar Creek	SE	SW	32	34N	12W	MD	500 gpd	Jan 1-Dec 31	Domestic	L-4827
14862	6/16/52	Louie A. Mair, et al.	—	Spring tributary to New River	NE	SE	7	6N	7E	H	4,320 gpd	Jun 1-Dec 31	Domestic	L-4531
15040	10/6/52	Kenneth and Louise Ingraham	—	Tributary to South Fork Trinity River	NE	SW	25	3N	6E	H	7,200 gpd	Jan 1-Dec 31 May 1-Nov 1	Domestic and stockwatering Irrigation, 3.0 acres	L-4840
15188	2/6/53	Russell Marritt	—	Spring within Trinity River Watershed	NW	NE	23	5N	6E	N	1,000 gpd	Jan 1-Dec 31	Domestic	L-5370
15213	3/2/53	Walter S. and Nora B. Miner	—	Spring tributary to Hayfork Creek	NW	SW	20	5N	7E	R	4,000 gpd	Jan 1-Dec 31 May 15-Oct 10	Domestic Irrigation, 1.0 acre	L-5286
15227	3/9/53	Andrew and Arzella Carlson	—	Trinity River	SW	SW	28	7N	5E	H	4,000 gpd	May 1-Nov 1	Domestic	L-5145
15266	3/31/53	Benjamin H. Moore	—	Trinity River	NW	NE	20	7N	5E	R	8,000 gpd	May 1-Oct 1	Irrigation, 5.0 acres	L-4779
15273	4/3/53	John Paul and Eleanor M. Hunter	—	Spring tributary to Trinity River	SW	NW	14	6N	5E	H	800 gpd	Jan 1-Dec 31	Domestic	L-5039
15284	4/8/53	Del DeRoster and Humboldt Placer Mining Company	—	Slate Creek Van Matre Creek Owens Creek Stuart Fork of Trinity River	SW SE SE SW NW	NW SE SW SW NW	4 24 11 31 31	34N 35N 35N 35N 36N	9W 10W 10W 10W 9W	MD MD MD MD MD	10 cfe 4.0 cfe 25 cfe 100 cfe	Dec 1-Jul 1	Domestic and mining	P-9554
15320	4/28/53	F. D. and Ada MacIntosh	—	Spring tributary to Trinity River	NW	SE	20	6N	6E	H	2,500 gpd	Jan 1-Dec 31	Domestic	L-4670
15365	6/3/53	Lawrence O. and Josephine E. Clayton	—	Trinity River	NE	SE	13	6N	5E	H	750 gpd	Jan 1-Dec 31	Domestic	L-5059
15366	6/3/53	Lawrence O. and Josephine E. Clayton	—	Trinity River	NE	SE	13	6N	5E	R	250 gpd	Jan 1-Dec 31	Domestic	L-5060
15374	6/15/53	United States Bureau of Reclamation	—	Trinity River	SW N $\frac{1}{2}$	N $\frac{1}{2}$	8 15	33N 34N	8W 8W	MD MD	300 cfe 200,000 af	-	Industrial and municipal	Pending
15375	6/15/53	United States Bureau of Reclamation	—	Trinity River	SW N $\frac{1}{2}$	N $\frac{1}{2}$	8 15	33N 34N	8W 8W	MD MD	1,700 cfe 1,800,000 af	-	Irrigation and domestic	Pending
15376	6/15/53	United States Bureau of Reclamation	—	Trinity River	N $\frac{1}{2}$ SW SE	N $\frac{1}{2}$ SW SE	15 8	34N 33N	8W 8W	MD MD	1,800,000 af 3,525 cfe	-	Navigation, power, and recreational	Pending
15379	6/17/53	Amber L. Carr	—	Trinity River underflow	NW	NE	20	7N	5E	H	5,000 gpd	Jan 1-Dec 31	Domestic and irrigation, 1.5 acres	P-9677
15460	8/12/53	Harold and Beverly Rodgers	—	Slattery Gulch	SW	NW	4	33N	10W	MD	700 gpd	Jan 1-Dec 31	Domestic	L-5165
15461	8/12/53	Harold and Beverly Rodgers	—	Slattery Gulch	SW	NW	4	33N	10W	MD	700 gpd	Jan 1-Dec 31	Domestic	L-5166

TABLE C-1 (Continued)

APPLICATIONS TO APPROPRIATE WATER IN
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					1/4	1/4	Sec.	Tp.	R.	B. B. M.			
15472	8/21/53	O. C. Cottingham	—	East Weaver Creek	SW	NW	32	34N	94	ND	Apr 1-Oct 15	Irrigation, 0.50 acre	P-9671
15517	8/31/53	Morris E. and Marion Keeling	—	Barie Gulch	SW	NE	13	34N	11W	ND	Jan 1-Dec 31	Domestic	P-9655
15538	9/14/53	James W. Lane	—	Barie Gulch	SW	NE	13	34N	11W	ND	Jan 1-Dec 31	Domestic	L-5090
15589	10/28/53	John A. and Verna A. McPherson	—	Trinity River	NW	NE	20	7N	5E	E	Jan 1-Dec 31	Domestic	P-9678
15617	11/23/53	Bobby E. Raine	—	Tributary to Canyon Creek	SE	SW	30	35N	10W	ND	Jan 1-Dec 31	Domestic	L-5336
15740	2/19/54	Louis A. Maire, et al.	6N/7E-7J1	Tributary to New River	NE	SE	7	6N	7E	R	Dec 1-May 1	Mining	L-5351
15806	3/30/54	Trinity Acres Mutual Water Co.	—	Bloody Nose Creek	N1/2	—	33	7N	5E	H	Mar 1-Nov 1	Domestic	P-9951
15821	4/7/54	Frederick W. Schluter	—	Spring tributary to Trinity River	NW	SE	25	5N	6E	N	Jan 1-Dec 31	Domestic, fire protection, and irrigation, 0.50 acre	P-9864
15830	4/12/54	James W. Grant	—	Tributary to Coffee Creek	SW	SE	32	38N	8W	ND	Jan 1-Dec 31	Domestic and mining	P-10075
15839	4/15/54	Fannie R. and S. E. Coulter	—	Hocker Gulch	SE	SE	2	33N	11W	ND	Jan 1-Dec 31	Domestic and irrigation	P-10085
15927	6/24/54	Grace MacDonald, et al.	—	Friday Spring tributary to Friday Creek	SE	SW	22	7N	5E	H	Jan 1-Dec 31	Domestic	L-5313
15940	7/8/54	Theodore R. and Margaret L. Deener	—	Trinity River underflow	SW	SW	28	7N	5E	H	Jan 1-Dec 31	Domestic and irrigation, 6.5 acres	P-9906
16040	9/14/54	Ray M. and Mary A. Dahl	—	Maxwell Creek	SE	NW	4	32N	10W	ND	Jan 1-Dec 31	Domestic and irrigation, 5.0 acres	P-10162
16061	9/22/54	Lester and Eulah Beal	—	Tributary to Trinity River	SW	SW	27	34N	11W	ND	Jan 1-Dec 31	Domestic and fire protection	P-10285
16087	10/13/54	Rochlin Venser Company	7N/5E-28W1	Trinity River	SW	SW	28	7N	5E	H	Jan 1-Dec 31 Jan 1-Apr 1	Fire protection and industrial	L-5302
16112	10/25/54	Chauncey J. Wulph	—	Spring tributary to Trinity River	SW	SW	20	6N	6E	H	Jan 1-Dec 31	Domestic and fire protection	P-10128
16161	12/15/54	W. M. and Marie E. Gillean	—	Comer Creek	NW	NW	3	33N	11W	ND	Jan 1-Dec 31	Domestic and irrigation	P-10499
16206	1/17/55	James Fenton	—	Collins Bar Creek	NW	NW	24	5N	6E	H	Jan 1-Dec 31	Domestic and mining	P-10156
16220	1/27/55	Henry A. Paschall	—	Spring tributary to Trinity River	SE	SW	16	7N	5E	H	Jan 1-Dec 31	Domestic	P-10224
16248	2/28/55	Raymond E. and Roberta E. Chilton	—	Spring tributary to Trinity River	SW	NE	17	7N	5E	H	Jan 1-Dec 31	Domestic and irrigation, 4.0 acres	P-10195
16250	2/28/55	Vernon E. and Roberta R. Mateon	—	Bloody Nose Creek	SW	NE	33	7N	5E	E	Jan 1-Dec 31 Jan 1-Oct 15	Domestic irrigation, 1.0 acre	P-10245
16286	3/16/55	Frank M. Powers	—	Barnum Gulch Spring	SW	SE	16	7N	5E	R	Jan 1-Dec 31	Domestic	P-10418
16290	3/21/55	Catherine I. Carr	33W/10W-6D1	Clear Gulch tributary to Canyon Creek	NE	NW	6	33N	10W	ND	Jan 1-Dec 31 Mar 1-Oct 31	Domestic irrigation, 2.5 acres	L-5339
16311	4/14/55	Charles H. and Mamie E. Bradley	—	Panther Creek	NE	SE	32	7N	5E	H	Jan 1-Dec 31	Domestic	P-10206

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					1/4	1/4	Sec.	Tp.	R.	B. & M.					
16395	5/27/55	Gino G. Bernardi	—	Barnum Gulch Spring	SE	SW	16	7N	5E	N		325 gpd	Jan 1-Dec 31	Domestic	P-10419
16438	6/24/55	David A. and George L. Johnston	—	Scott Gulch	NW	NE	32	7N	7E	H		2.0 cfs	Jan 1-Dec 31	Domestic and power	P-10549
16464	7/13/55	Lawrence O. and Josephina Clayton	—	Spring tributary to Trinity River	SW	SE	13	6N	5E	H		4,800 gpd	Jan 1-Dec 31	Domestic	P-10351
16473	7/20/55	John Lesh	—	Tributary to Trinity River	NE	NE	33	34N	11W	MD		0.090 cfe	Jan 1-Dec 31	Domestic and irrigation	P-10373
16499	8/3/55	R. J. and Owendolyn B. Raymar	—	Ripstein Gulch	NW	NW	20	35N	10W	MD		250 gpd	Jan 1-Dec 31	Domestic	P-10986
16505	8/8/55	Earl W. Laughlin	—	Shaber Creek	SW	NE	13	6N	5E	H		2,000 gpd	Jan 1-Dec 31	Domestic	P-10565
16510	8/9/55	Mrs. Claude I. McKnight	34N/9W-32E1	East Heaver Creek	SW	NE	32	34N	9W	MD		0.05 cfs	Jan 1-Dec 31 May 1-Nov 1	Domestic and fire protection Irrigation, 5.0 acres	P-10423
16528	8/16/55	William N. and Elsie Oden	—	House Creek	NW	NE	24	6N	5E	N		0.047 cfs	Jan 1-Dec 31	Domestic	P-10327
16580	9/2/55	Katherine S. Hubbard	35N/8W-10W1	Bowerman Gulch	NE	SW	10	35N	8W	MD		2.0 cfs	Jan 1-Dec 31	Domestic and power	P-10392
16657	10/10/55	Frank A. and Harriet T. Graham	—	Ducky Spring	NE	SE	29	7N	5E	N		100 gpd	Jan 1-Dec 31	Domestic	P-10747
16682	10/21/55	George Green Estate	—	Spring in Dogwood Creek	NW	SE	3	5N	6E	H		3,600 gpd	Jan 1-Dec 31	Domestic	P-10451
16750	11/28/55	G. C. Cottingham	—	Soldier Creek	SW	NE	30	33N	10W	MD		0.25 cfe	May 1-Nov 1	Domestic and irrigation, 20 acres	P-11232
16767	12/2/55	United States Bureau of Reclamation	—	Trinity River	SW	SE	8	33N	8W	MD		700,000 af	—	Domestic, irrigation, and salinity control	Pending
16768	12/5/55	United States Bureau of Reclamation	—	Trinity River	SW	SE	8	33N	8W	MD		175 cfe	—	Power	Pending
16808	12/21/55	G. C. Cottingham	—	Bell Gulch	NW	SE	30	33N	10W	MD		0.063 cfe	May 1-Nov 1	Irrigation, 5.0 acres	P-11233
16839	1/23/56	Luis and Leonta M. Aramayo	—	Demi Gulch	NE	NW	32	35N	11W	MD		900 gpd	May 1-Oct 31	Domestic and fire protection	P-10769
17023	4/24/56	State of California Department of Water Resources	—	Trinity River	—	—	13	5N	6E	H		185,000 af	—	Domestic, irrigation, and salinity control	Incomplete
17024	4/24/56	State of California Department of Water Resources	—	Trinity River	—	—	14	5N	6E	H		185,000 af	—	Power	Incomplete
17025	4/24/56	State of California Department of Water Resources	—	Trinity River	—	—	36	34N	12W	MD		3,050,000 af	—	Domestic, irrigation, and salinity control	Incomplete
17026	4/24/56	State of California Department of Water Resources	—	Trinity River	—	—	36	34N	12W	MD		3,050,000 af	—	Power	Incomplete
17027	4/24/56	State of California Department of Water Resources	—	Trinity River	—	—	2	8N	4E	H		7,760,000 af	—	Domestic, flood control, irrigation, industrial, municipal, recreational, and salinity control	Incomplete
17028	4/24/56	State of California Department of Water Resources	—	Trinity River	—	—	2	8N	4E	B		7,760,000 af	—	Power	Incomplete
17029	4/24/56	State of California Department of Water Resources	—	South Fork Trinity River	—	—	3	3N	6E	H		1,260,000 af	—	Domestic, flood control, irrigation, industrial, municipal, recreational, and salinity control	Incomplete

TABLE C-1 (Continued)

APPLICATIONS TO APPROPRIATE WATER IN
TRINITY RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of January 15, 1959)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion					Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	S. & M.			
17030	4/24/56	State of California Department of Water Resources	—	South Fork Trinity River	—	—	3	3N	6E	N	—	Power	Incomplete
17070	5/3/56	Swanson Mining Corp. and Walter M. Gleason	—	Campbell Creek Hadden Creek Tributary to Campbell Creek Four Mile Creek Duck Creek Sagey Creek	NW	SE	20	6N	5E	N	50 cfs	Power and domestic	P-11032
17071	5/3/56	Swanson Mining Corp. and Walter M. Gleason	—	Same source and point of diversion as named in application No. 17070	SE	SW	21	6N	5E	N	25.0 cfs	Domestic and industrial	P-11033
17072	5/3/56	Swanson Mining Corp. and Walter M. Gleason	—	Same source and point of diversion as named in application No. 17070	SE	SW	21	6N	5E	N	50.0 cfs	Domestic and mining	P-11034
17078	5/9/56	Charles N. Seely	—	Ducky Spring	NE	SE	29	7N	5E	N	1,000 gpd	Domestic	P-10798
17094	5/17/56	Howard N. and Nydie K. Smith	—	Spruce Gulch Creek	NW	SE	2	33N	11W	HD	0.20 cfs	Domestic and irrigation, 10 acres	P-10907
17174	7/12/56	Donald B. and Lucette A. Hunt	—	Mule Creek	SW	NW	13	35N	9W	HD	0.025 cfs	Domestic and irrigation, 1.75 acres	P-11438
17175	7/12/56	Donald B. and Lucette A. Hunt	—	Mule Creek	SW	NW	13	35N	9W	HD	1.0 cfs	Mining	P-11439
17255	8/24/56	Ralph L. Smith Lumber Company	—	Tributary to Hayfork Creek	NW	SE	11	29N	11W	HD	5,000 gpd	Domestic	P-10912
17372	11/27/56	E. E. O. A., and J. W. Carlson	—	Spring tributary to Trinity River	SE	SE	5	7N	5E	N	840 gpd	Domestic and irrigation, 2.0 acres	P-11153
17374	11/28/56	United States Bureau of Reclamation	—	Trinity River	SW	SE	8	33N	8W	HD	1,500 cfs	Irrigation, navigation, domestic, stockwatering, recreational, and salinity control	Pending
17390	12/12/56	Donald S. Kennedy	—	Tributary to Little Grass Valley Creek	NW	NW	14	32N	8W	HD	2,500 gpd	Domestic	P-11363
17421	1/14/57	William L. and Rose Horton	—	Tributary to Four Mile Creek	SE	SE	18	6N	5E	N	16,000 gpd 1.0 af	Domestic, fire protection, and irrigation, 9.0 acres	P-11382
17511	3/14/57	Frank and Evelyn Orsney	—	Spring tributary to Trinity River	NE	NE	9	6N	5E	H	12,000 gpd	Domestic, recreational, and irrigation, 1.0 acre	P-11002
17538	4/3/57	Robert Sharpe and Orlo Fletcher	—	Spring tributary to Deep Gulch	NE	NE	36	3N	6E	N	6,000 gpd	Domestic and irrigation, 0.5 acre	P-11208
17542	4/4/57	Edwin E. Hamick	—	Thurston Gulch tributary to Barney Gulch	NE	NE	4	34N	11W	HD	0.10 cfs	Domestic, fire protection, and irrigation, 27.5 acres	P-11138
17597	5/10/57	Nelson M. and Lawrence C. Williams	—	Spring tributary to South Fork Trinity River	SE	SW	36	6N	5E	H	0.50 gpd	Domestic	P-11500
17618	5/22/57	Harold J. and Mary J. Wilson	33N/84-1741	Deerwood Creek	NW	SW	15	33N	8W	HD	2.0 cfs	Domestic and irrigation, 14.5 acres	P-11389
17626	5/27/57	Brinsard Company	—	Glover Flat Creek tributary to Trinity River	NE	SW	20	7N	5E	N	9,000 gpd	Domestic	P-11142
17669	6/22/57	Ouy F. Atkinson Company	33N/84-1741	Trinity River	SW	NW	17	33N	8W	HD	0.75 cfs	Domestic, fire protection, and recreational	P-11106
17743	7/26/57	Trinity Alps Land Company	33N/84-1941	Trinity River	NE	NE	19	33N	8W	HD	0.37 cfs	Domestic	P-11178

P - Indicates permit number of application approved.

I - Indicates license number of right confirmed.

Incomplete - Indicates application not yet complete.

Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)

APPLICATIONS TO APPROPRIATE WATER IN
TRINITY RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of January 15, 1959)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status ^a
					1/4	1/4	Sec.	Tp.	R.	S. B. M.				
17749	7/31/57	Hard Hate Trailer Park, Inc.	33W/84-1791	Trinity River	NW	SW	17	33N	64	MD	0.23 cfs	Jan 1-Dec 31	Domestic	P-11255
17794	8/22/57	Gene and Lottie Goss	—	Spring tributary to Trinity River	NE	SW	13	6N	5E	H	1,000 gpd	Jan 1-Dec 31	Domestic	P-11245
17804	8/27/57	Rose M. Darrt and Donna and Phyllis Jurin	—	Campbell Creek	NW	NW	22	6N	5E	H	1,000 gpd	Apr 1-Nov 1	Domestic	P-11596
17805	8/27/57	Rose M. Darrt and Donna and Phyllis Jurin	—	Spring tributary to Campbell Creek	NW	NW	22	6N	5E	H	500 gpd	Nov 1-Apr 1	Domestic	P-11397
17931	12/31/57	United States Six Rivers National Forest	—	Spring tributary to Cedar Creek	SW	NW	28	6N	4E	H	1,000 gpd	Jan 1-Dec 31	Domestic	P-11433
17941	1/15/58	Hal E. Goodyear	—	Reading Creek	NE	SW	12	32N	10W	MD	0.50 cfs	Jan 1-Dec 31	Industrial	P-11995
17975	2/5/58	United States Shasta-Trinity National Forest	—	Spring tributary to Philpot Creek	SW	NW	22	30N	12W	MD	0.020 cfs	Jan 1-Dec 31	Domestic	P-11559
17977	2/5/58	United States Shasta-Trinity National Forest	—	Kerlin Creek	NW	SW	22	3N	6E	H	0.030 cfs	Jan 1-Dec 31	Domestic	P-11561
18019	2/27/58	Leonard M. and Florence E. Morris	—	Garden Gulch Creek	NE	NE	12	33N	10W	MD	0.050 cfs	Apr 1-Nov 15	Irrigation, 2.0 acre	P-11534
18051	3/17/58	Donald E. Carlson, et al.	—	Tributary to Bregon Creek	SW	SW	10	35N	7W	MD	0.63 cfs	Jan 1-Dec 31	Domestic and mining	P-11593
18080	4/4/58	Eugene T. and Bertha C. Phares	31N/124-491	Hayfork Creek	NW	SW	4	31N	12W	MD	0.38 cfs	—	Irrigation, 30 acres	Pending
18082	4/7/58	State of California Division of Highways	—	Spring tributary to Willow Creek	NW	NE	32	7N	5E	N	1,500 gpd	Jan 1-Dec 31	Domestic and industrial	P-11611
18107	4/28/58	Charles F. Thomas	—	Spring tributary to South Fork Trinity River	SW	NW	25	6W	5E	H	2,000 gpd	—	Domestic and stockwatering	Pending
18117	5/21/58	United States Shasta-Trinity National Forest	—	Tannery Gulch	NW	SE	2	34N	9W	MD	0.25 cfs	—	Domestic	Pending
18159	5/26/58	Thelma E. and Everett D. Doot	—	Raccoon Creek	SE	NE	15	7N	5E	H	0.69 cfs	—	Stockwatering and irrigation, 55 acres	Pending
18177	6/11/58	United States Bureau of Reclamation	33W/84-1942	Trinity River	NE	SW	19	33N	8W	MD	418 gpm	—	Domestic and municipal	Pending
18190	6/20/58	Lakeriver Terrace	—	Alder Gulch	SE	SW	20	33N	8W	MD	30 gpm	—	Domestic	Pending
18194	6/25/58	Alice Douglas Shore	—	Possy Gulch	SE	SE	32	34N	8W	MD	0.040 cfs	—	Domestic	Pending
18201	6/27/58	L. W. Shiell	—	Spring tributary to Trinity River	SW	NW	21	7N	5E	N	6,000 gpd	—	Domestic and irrigation	Pending
18357	10/1/58	Erith Dose	—	Chachelulle Gulch tributary to Hayfork Creek	SW	SW	19	30N	10W	MD	1.0 cfs	—	Irrigation, 35 acres	Pending
18408	11/13/58	Don Grestidge	—	Tributary to McDonald Creek	SE	SW	15	5N	6E	H	25 af	—	Recreational	Incomplete
				Spring tributary to Trinity River	SW	SE	32	33N	9W	MD	100 gpd	—	Domestic	Incomplete

APPENDIX D

COMMENTS ON BULLETIN NO. 94-2
"LAND AND WATER USE IN TRINITY RIVER HYDROGRAPHIC UNIT"
PRELIMINARY EDITION

TABLE OF CONTENTS

COMMENTS ON BULLETIN NO. 94-2 "LAND AND WATER USE IN TRINITY RIVER HYDROGRAPHIC UNIT" PRELIMINARY EDITION

	<u>Page</u>
FOREWORD	D-3
PUBLIC HEARINGS OF THE DEPARTMENT OF WATER RESOURCES	
Public Hearing Held at Civil Defense Auditorium, Weaverville, Trinity County, California, June 19, 1963	D-4
Written Statements	D-4
Partial Transcript of Hearing	D-4
Public Hearing Held at Hoopa School, Hoopa, Humboldt County, California, June 19, 1963	D-10
Written Statements	D-10
Partial Transcript of Hearing	D-10

FOREWORD

In accordance with Section 232 of the Water Code, the State Department of Water Resources held two public hearings on June 19, 1963, to secure comments on the preliminary edition of Bulletin No. 94-2, "Land and Water Use in Trinity River Hydrographic Unit." These hearings were held within the hydrographic unit at Weaverville, Trinity County, and Hoopa, Humboldt County.

This appendix contains the pertinent comments presented at these public hearings relating to the preliminary edition of the bulletin. One written statement pertaining to this report was received by the Department of Water Resources.

PUBLIC HEARING
OF THE
DEPARTMENT OF WATER RESOURCES

Held at Civil Defense Auditorium,
Weaverville, Trinity County, California, June 19, 1963

Written Statements

The opportunity to comment in writing upon the contents of the preliminary edition of Bulletin No. 94-2 was offered to all who so desired. However, no written statements were received by the Department of Water Resources at this hearing.

Partial Transcript of Hearing

CHAIRMAN FOLEY^{1/}: "... Going through the questionnaires I find that Mr. Bert A. Phillips would like to have a word. Mr. Phillips?"

MR. PHILLIPS^{2/}: "My name is Bert A. Phillips. I reside in Douglas City. I am appearing here today representing Trinity County Farm Bureau, being a director of that organization. ... I received this 'Land and Water Use in Trinity River Hydrographic Unit,' about 15 minutes ago ... It is my first look at it and I am interested in the land classifications as for water -- as for crop use of water on alfalfa, on pasturage, and on the crops that we do grow in this county. As I refer to your classifications here, your water use on crops ... you give a certain amount of water for the growth of alfalfa, irrigation water, and I presume by that you mean ... water out of ditches. Now, if that is true then I think you are quite low. ... Let's refer to page 67 where you have got the 'Unit consumptive use of applied water in acre-feet per acre.' You have for irrigating of mixed, native and meadow pasture, two acre-feet.. That is per season, I assume; is that right?"

CHAIRMAN FOLEY: "I would like to have Mr. Sawyer appear at this time and answer your questions because he is a specialist in that."

1/ Mr. Robert E. Foley, Chief, Special Studies Section, Northern Branch, Department of Water Resources.

2/ Mr. Bert A. Phillips, Director, Trinity County Farm Bureau.

MR. PHILLIPS: "All right. Did you understand my question, Mr. Sawyer?"

MR. SAWYER^{1/}: ". . . Yes, that is the annual unit consumptive use figure."

MR. PHILLIPS: "And for alfalfa you have one point seven acre-feet of water? Hay and grain you have six-tenths of one acre-foot of water per season. Your orchards, your field crops and truck crops, which we don't have -- practically none in this county, to my knowledge. But, those first three I am very familiar with because I raise them myself, and I do not believe in this county that we can get by with that amount of water."

MR. SAWYER: "Now, you realize that what they are saying here is that this would be the amount that would be evaporated or transpired by the plant, not the . . . application rate and if we applied fifty or sixty percent -- say fifty percent (irrigation efficiency), it would mean we are talking about four acre-feet seasonal application for pasture."

MR. PHILLIPS: "See, one reason I question this, in 1953 to 1957 I served as Chairman of the California-Klamath River Commission where we consummated and negotiated a compact between Oregon and California on the uses of the waters of the Klamath River and that compact is now a law, recognized by both State Legislatures and the U. S. Congress. In the hearings we had in the Klamath Basin comparable figures were put on, not only evaporation, but on water use too. Now I presume that you have gone into the different structures of land whether clay, sand, whether it is rock?"

MR. SAWYER: ". . . As they say a little farther down here, these figures were taken from that Klamath River Basin Investigation report. Probably this is where you saw the figures before. . . . No particular study was done . . . in the course of this investigation to revise these in any way. They were taken from the report. I would say that in the course of our future studies in which we are determining projected future water requirements, . . . we have worked up new figures . . . and I don't have that information right now. It is not published. We are still working it up. But, as I say, this particular investigation did not involve any particular study to come up with some new figures and no review was made of these figures that were reported before, they were just abstracted."

^{1/} Mr. Glenn Sawyer, Land and Water Use Analyst, Northern Branch, Department of Water Resources.

MR. PHILLIPS: "Then the new figures you have, they are also subject to revision?"

MR. SAWYER: "Right."

MR. PHILLIPS: ". . . From hearings of this type, does that have any bearing on the final figures you would have as far as further investigation is concerned?"

MR. SAWYER: "Oh, I believe so, yes."

MR. PHILLIPS: "All right, because I want to call this to the attention of the department. We who live in Trinity County, of course, we are not really a farming country, not a farming county, but there are some nice farms in the county and there is a lot of water and we use it as much as we can beneficially. All right, now, we have plans. We have an organization in the county that is in its third year now called the Trinity County Recreation and Development Association that was organized principally to bring industry into the county. I notice your industrial use here is very low which is your prophecising on what is present now, the number of mills and the mining, that is all there is, but could I ask the department to look further, to look into the potential industrial development further for the future and to get some figures from the County Board of Supervisors to justify the projection of increased water uses for future potential industry because we are sure we are going to have it."

MR. SAWYER: "I am sure a standard approach for our projections in recent years has been to obtain all the information we can from public sources and I assure you we will take note of your suggestions."

MR. COSTELLO^{1/}: ". . . Several people told me they were going to attend the meeting and one of the things that is uppermost in their minds is whether the Department of Water Resources will make a fair evaluation of the needs, water needs, of the county in the future and whether they will see to it that these water needs are respected if and when the need for more water in Southern California becomes necessary as the years go on. Could you tell us something of the department's attitude on that, sir?"

CHAIRMAN FOLEY: "Well, as I mentioned earlier, the purpose of these reports . . . is to collect basic data . . . analyze

^{1/} Mr. Ralph Costello, Publisher of the Journal. (Weaverville)

the data and be sure that the first priority is given to the areas of origin and in order ... that the amount of water left in the county to carry out its full potential of development. It is not the intent of the Department of Water Resources, or any other agency that I know of, to take and arrange to import -- or export, I should say, the waters which are needed for the development of the ... areas of origin."

MR. FLOYD O. TUMELSON^{1/}: "... In view of the emphasis being placed on recreation, when and how does the department evaluate possibilities for future recreational development in terms of water need? Is this done as part of the industrial water development? How do you arrive at this particular need within a county or within a unit?"

CHAIRMAN FOLEY: "Well, at the present time, there are studies going on within the department in which they choose the areas for present recreational study and these studies constitute source of the visitor, where he comes from, how he travels, whether he is pulling a trailer or whether he is camping or whether he is staying at local motels or hotels, the number of people in the cars, the duration of their stay, and the type of recreation they are interested in, whether it is fishing or boating or swimming. These recreational studies started a couple of years ago and are continuing each year. They take sample areas throughout California and study those in detail and from those they determine or forecast the type of recreation that would tie into new developments and the water use for recreational purposes is contained as part of the M & I (Municipal and Industrial) water development need for local consumption. So every effort is being made to create a realistic picture of the recreational demands and recreation patterns and type of -- well, the types of recreation that the people are actually interested in."

MR. HERMIS DAILEY^{2/}: "Mr. Chairman, may I ask what this will have to do with existing water rights on streams tributary to but not covered by the lake?"

CHAIRMAN FOLEY: "Well, Mr. Abbott is our specialist in water rights and I would like to have him answer that question. . . ."

^{1/} Mr. Floyd O. Tumelson, U. S. Soil Conservation Service.

^{2/} Mr. Hermis Dailey, resident, Denny, California.

MR. ABBOTT^{1/}: "In answer to your question, any water rights above the project would be honored as they are now presumably. I don't know your area in detail because I haven't worked up here, but I assume that there are probably numerous diversions or ditches that would be located above any reservoirs that would be constructed in the North Coast area and, of course, if those water rights are good now they would be good in the future and I might just draw a little comparison: We are building Oroville Reservoir at the present time and, of course, an extensive area is irrigated above the reservoir. There is Sierra Valley, Indian Valley, and we have development of the South Fork of the Feather River and those rights are being honored and the people who use water above Oroville Reservoir and have used it in the past, will continue to use it in the future ... in fact, there is development taking place at the present time and the department has not objected to any development in the local area above the Oroville Reservoir. To answer your question, any water rights above the reservoir of the Trinity River will be honored, and, I think anybody else would honor it."

MRS. BROWN^{2/}: "May I ask a question similar to this? What happens to below the reservoir?"

MR. ABBOTT: "I might draw the same correlary there. Below the Oroville Reservoir -- I don't know the exact number of ditches on the Feather River below the Oroville Reservoir, but immediately below the Oroville Reservoir there are two large canals. We intend to honor those water rights. These people have diverted water on the Feather River for years and they have a right to this water. The department actually has made measurements of the diversions for years. We have this pretty well tied down as far as amounts of water are concerned and we will honor those water rights and we will do the same thing if there are any projects constructed here."

MR. HERYFORD^{3/}: "I have one more question. Not having had an opportunity to go through this, has a determination been made as to the actual number of acre-feet of that might be considered surplus water available in Trinity County or in this hydrographic unit?"

CHAIRMAN FOLEY: "I don't think that has been determined yet. See, the next stage of the report under water requirements and project staging will consider all the needs within the county before that is published. . . ."

1/ Mr. Orville Abbott, Chief of Special Studies Section, Planning Division, DWR.

2/ Mrs. Marion Brown, resident, Weaverville, California

3/ Mr. Roscoe Heryford, resident, Weaverville, California

CHAIRMAN FOLEY: "Well, if there is nothing further, we sincerely thank you for being here today. We realize it has broken into a busy day. It has been our attempt to describe, as near as possible, the situation that now exists in connection with the land water use in the Trinity County Hydrographic Unit and, as I say, if you come across any of your friends this afternoon who say, 'If I had only known I would have been there,' if they want to drive to Hoopa we have a repeat at 8:00 p.m. Thank you very much for coming."

PUBLIC HEARING
OF THE
DEPARTMENT OF WATER RESOURCES

Held at Hoopa School, Hoopa,
Humboldt County, California, June 19, 1963

Written Statements

The opportunity to comment in writing upon the contents of the preliminary edition of Bulletin No. 94-2 was afforded to all who so desired. However, only one written statement was received by the Department of Water Resources. This statement, from the Humboldt County Board of Supervisors, is included in the following "Partial Transcript of Hearing."

Partial Transcript of Hearing

CHAIRMAN FOLEY: "....I believe, before turning the meeting over for questions, that you, Mr. Landis, would like to read your letter into the record?"

MR. LANDIS^{1/}: "Yes. Thank you, Mr. Foley. On behalf of the Board of Supervisors tonight, I am sorry that there was a misunderstanding in regard to this hearing as this is just a study of this given land use of this particular area and studies will be held in Ferndale in about two weeks from today and, as a result, I have prepared a statement from the Board of Supervisors. I didn't think I would be reading it to such a large audience as there is here tonight." (Therefore, Mr. Landis proceeded to read as follows:)

"On behalf of the Board of Supervisors of Humboldt County, we wish to express our sincere thanks and gratitude to you for having a hearing this evening here in beautiful Hoopa Valley, regarding your findings on the matter of Land and Water Use in the Trinity River Hydrographic Unit.

"Humboldt County believes that the Department of Water Resources should be apprised of the fact that an engineering report titled 'Humboldt County Water Requirements and Resources' has recently been completed under the authorization of the

1/ Mr. W. F. Landis, Supervisor, Humboldt County Board of Supervisors.

Board of Supervisors and will shortly be forwarded to the appropriate state departments for consideration. This report now in the process of being printed covers the entire County of Humboldt and delineates present land use, present water use, future land use and future water requirements.

"We hope our report will be constructive and beneficial, not only to Humboldt County but for everyone in the State of California. We in Humboldt appreciate the value of water as being our No. 1 resource and feel it important that water utilization be continued as the No. 1 priority of federal, state and local government mutual actions.

"A cursory review of the basic data included in Bulletin No. 94-2 indicates that there are no apparent areas of disagreement concerning existing land use and water use in those portions of the Trinity River Hydrographic Unit which fall in Humboldt County.

"At this time we ask that you favorable consider a report which will be presented at a later date from our Humboldt County Water Study Committee and our consultants, namely, Winzler, Winzler and Kelley, regarding your findings in Bulletin No. 94-2.

"As you know, it wasn't too many years ago that this particular report would have been considered premature, but because of the rapid changes taking place in California in population, agriculture, industry, manufacturing, recreation, etc., and with the recent decision of appropriations of Colorado water for California use being limited, it leaves us no alternative but to expedite programming in an efficient and beneficial manner.

"We presume your representatives here this evening will express the details enclosed in your Bulletin No. 94-2 to those in attendance and will be in a position to answer most of the basic questions that might be asked.

"For the record, we feel it important that you be reminded as to the actions taken by Humboldt County regarding our awareness of feasibility reports to you to protect our ultimate need, and also of our contract with the Department of Interior, Bureau of Reclamation, dated June 19, 1959.

"We received a confirming report from the State Water Rights Board on September 15, 1959, of our applications 5627, 5628, 15374, 15375, 16767, 16768, and 17370 with the U. S. Bureau of Reclamation, Trinity River, Trinity County. We would like to quote paragraph 16 of the agreement:

'Permittee shall release sufficient water from Trinity and/or Lewiston Reservoirs into the Trinity River so that no less than an annual quantity of 50,000 acre-feet will be available for the beneficial use of Humboldt County and other downstream users.'

"The report of Donald Kennedy, Weaverville Attorney, as reported to members of the Hoopa Tribal Council, could be premature in dates of dam construction in this Trinity River area and in conflict with impressions received by members of the Eel River Flood Control and Water Conservation Association.

"Senate Bill S-1275, introduced by U. S. Senator Thomas H. Kuchel, designed to end bitter political and legal disputes about federal and state power under water rights in the western states, is worthy of further state support.

"We hope the cooperation of federal, state and local governmental bodies will continue in the close-knit manner that has prevailed over the past three years.

"We would appreciate a verbal brief be given those in attendance this evening regarding State Water Code policy on watershed protection and area of origin protection.

"As stated, we appreciate your attendance and report here this evening and we will do everything possible in sharing to create and encourage new wealth and prosperity for California.

"Sincerely,

"Humboldt County Board of Supervisors."

CHAIRMAN FOLEY: "Thank you very much, Mr. Landis. We are aware of the report which is being prepared by Winzler, Winzler and Kelley. We worked very closely with them during the formulation of their data and we feel that you are to be commended for the initiative that you have taken in bringing this type of study in. Certainly if other counties would follow that particular lead it would be of benefit to the department."

MR. KIRSCHMAN^{1/}: "Well, I haven't prepared any statement or anything, but I did have an opportunity to review your bulletin over the last two weeks or so and a couple of questions that came into my mind regarding the land classification are whether or not the lands that were classified, were those included in areas that might be some day inundated or did it just cover the whole area?"

MR. SAWYER: "Yes, the land classification did cover the complete area without any consideration to areas that might be inundated in the future."

MR. KIRSCHMAN: "Of course, as you probably know, Natural Forests have just completed a recreation survey. You are probably --"

MR. SAWYER: "Yes, I am aware of that. In fact, some of our recreational lands included in this report we have obtained from the Forest Service."

MR. KIRSCHMAN: "Just roughly, I really didn't check it too accurately, probably, but in adding up the total recreational lands that could be developed, oh, in just our local areas here, it seemed somewhat lower than what our figures showed."

MR. SAWYER: "I think that this might very well be true. What we did, for instance, when we used the Forest Service data, was to select the sites with the highest ratings."

"This recreation land that is included in this report is not an answer in itself. We are not projecting recreational use in this report. We are selecting sites of potentially very high value, in our estimation, for recreational development."

"This does not exclude any other lands. This study of water requirements for recreational use, for instance, will be more comprehensive than was shown in here and much more detailed. This is actually in progress at the present time."

MR. KIRSCHMAN: "I didn't realize this was a preliminary edition of your study, so thank you."

MR. POLIAK^{2/}: "I was wondering, you made reference in the report that there is 4,107,000 acre-feet of runoff here at Hoopa, but in the report you have no source of origin for this runoff."

"For instance, what I am interested in is the lower South Fork Unit or subunit, the Willow Creek subunit and the Hoopa subunit. What portion of the water is originated in those subunits?"

^{1/} Mr. Walter C. Kirschman, U. S. Forest Service, Six Rivers National Forest, Eureka.

^{2/} Mr. Walter Poliak, resident, Willow Creek.

CHAIRMAN FOLEY: "I am not positive."

"Do any of you gentlemen know?"

MR. ALLISON^{1/}: "I don't know but it will be in the report that will be out next year."

CHAIRMAN FOLEY: "I am told it will be in the report that comes out next year -- the source of these waters, what tributaries they originate in and how they are totalled up, the flow that goes past the stations that you mentioned."

"Mr. Peter W. Kriger?"

MR. PETER W. KRIGER^{2/}: "My question was mainly in summarizing this thing I notice a lot of this information is five or six years old that is in the book and the book is published in 1962. I seem to feel that the needs have changed since the publication or since some of this information was secured."

CHAIRMAN FOLEY: "In connection with that, the field work was done in 1957, along in that period of time, however, that establishes a point of reference on land use and land class and the report that is coming out next year will be current -- will set aside the current requirements of the water use."

"Do either one of you gentlemen want to add to that?"

MR. ALLISON: "Well, there is no new plan -- but water requirements will be covered."

CHAIRMAN FOLEY: "In the report that comes out a year from now the water requirements will be taken care of through the year 2020. That is the target date, a period approximately 55 to 60 years, but, as far as the amount of water that various lands need and the basic data that will not change."

MRS. BETTY ALLEN^{3/}: "Well, I had questions, of course, in regard to the dam and to any projected date which it seems like it will not be taken up this evening and I do think as Mr. Hotelling said, that we should establish a new line of communication so that we can go forward and keep the maps up-to-date, keep all of this information going."

"The one thing that I did have in my mind was just what Mr. Kriger had said. It seems like this report was taken in 1957 which I had thought was -- would make a change in this year 1963 with so much change in property and so much additional population that has come into our areas."

^{1/} Mr. Ralph Allison, Division of Resources Planning, DWR

^{2/} Mr. Peter W. Kriger, resident, Hoopa.

^{3/} Mrs. Betty Allen, Humboldt Times, Eureka.

"Then I am wondering if they would answer this question: How are they going to determine the amount of water that will be needed? We can see what is needed today in the irrigation ditches and the wells and all where we are situated today but in case the population is disbursed from this area how are we going to determine that we are going to keep the necessary water in the years ahead?

"That was my question."

CHAIRMAN FOLEY: "Thank you very much, Mrs. Allen. I would like to have Mr. Sawyer, I believe, answer a couple of those questions if he would on how it is figured on water requirements."

MR. SAWYER: "Our water requirement determinations, as has been pointed out, we staged through the year 2020. This information being reported, published, we hope by next summer, is developed on a basis of this land classification information that is included in this report and upon population projections which our economists make -- population projections and projections of industrial growth within the area.

"Now, this particular kind of work is not the easiest. In the course of making these studies it is our custom to contact local people. We have actually, in the early phases of this particular work ... been in contact with some of your county representatives discussing these things, getting their opinions of future development. We, of course, are not trying to set a pattern by our projections of future development. We need leads to get the best estimate we can of what may happen in an area.

"I think the best answer that I have to this, how can we do this, what do we do? It is through leads that we get through our discussions with local people and upon the basic data that we have collected and presented here and upon other basic data such as projections of future populations and industrial development."

CHAIRMAN FOLEY: "It has been a pleasure being here. We sincerely appreciate the opportunity to appear before you. We stand ready to return at any time that you might ask us to do so and we will bring you up-to-date on matters that might exist at that specific time.

"It is a real privilege and a real honor to have such a command audience. We want you to know that we do appreciate it. Thank you very much for coming."

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